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Guardian Angel

Lady Hamilton Figure
for David Grieve's
Horatio Nelson



Autoblindata Importante

Specs and Development
History on Italeri's AB41

'Micronexcellence!'

Iwata's Custom Micron Airbrush Put
Through Its Paces For Military Modellers

The 'Iron Cathedral'

Tweaking Academy's New M3 Lee Kit



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Vol.36 No. 9 2006

CONTENTS



Steve Zaloga corrected the suspension faults on Academy's 1:35 scale M3 Medium for a better scale appearance. See how he did it in 'The Iron Cathedral' beginning on page 36.

16 EURO MILITAIRE 2006

Competition Categories and other details for this year's show.

18 GUARDIAN ANGEL

Geoff Illsley's account of researching and building an accompanying figure of Lady Hamilton for David Grieve's Lord Nelson.

24 'ECLIPSING THE ECLIPSE'

Rob Henden tests the Iwata 'Micron B' airbrush and compares it with his trusty Iwata Eclipse.

30 AUTOBLINDATA IMPORTANTE

In the first of a two part feature Jay Lavery builds Italeri's AB41 kit of the Italian armoured car.

36 THE IRON CATHEDRAL

Steve Zaloga builds and corrects Academy's 1:35 scale kit of the US M3 Medium tank.

50 T-26 LIGHT TANK

Cookie Sewell concludes his four-part series and builds two more 1:35 scale model variants of the Soviet AFV.

64 THE NILE CAMPAIGN

Part 3. The states of the British and Egyptian armies in 1882.

Rob Henden puts the Iwata Micron B airbrush through its paces on military vehicles in different scales. The article begins on page 24.

13 NOTICE BOARD

All the latest news for military modellers.

15 DESPATCH

Readers' letters.

60 SMALL SCALE SCENE

Column for military vehicle modellers.

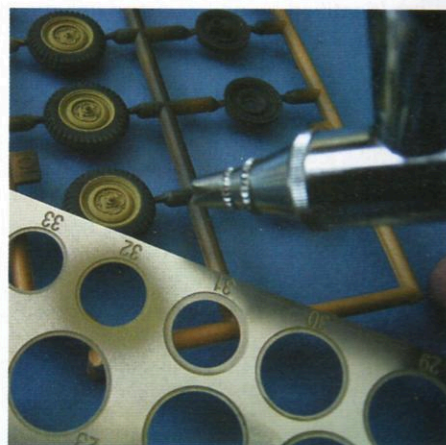
62 ON PARADE

Books reviewed.

70 "ATTEN-SHUN!"

New products reviewed.

COVER: Geoff Illsley's award winning 150mm vignette of Lord Horatio Nelson and Lady Emma Hamilton. Geoff made Emma from scratch to accompany the David Grieve figure of Nelson. Article begins on page 18.



NOTICE BOARD

Information and diary dates

● The Editor welcomes copy for publication in 'Notice Board'. This service is free of charge. Obvious 'for sale' notices, either private or trade will not be accepted. These restrictions do not apply to bona-fide museums and collections.

● Would secretaries of clubs and societies please allow a three-month lead time for time-sensitive notices. Please note: under no circumstances will copy be accepted by telephone. All notices must be in writing, by letter or e-mail.

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Peter Ledger 1944-2006

It causes great regret to announce the death of Peter Ledger, following a long and stubborn fight with cancer. Peter was a librarian with an abiding interest in the military units of Essex. For many years he was a mainstay of the British Model Soldier Society where he ran the member's Support Services and also, in conjunction with Paul Vickers, organized the Annual Shows and competitions. He was a popular and highly respected figure, within both the trade and the modelling fraternity, and news of his passing invariably provoked the phrase, 'He was one of the good guys', which he was.

A loving and caring husband and father our thoughts and condolences go out to his family, his wife Dot, and their children Juli-Ann and Andrew. He was a good friend, a gentlemen and a gentle man. R.I.P.

Alan Caton

Sutton Coldfield Correction

In Issue 7's 'Notice Board' the contact email for Peter Haywood for Sutton Coldfield Spectacular was incorrect - the underscore between the initials p and h in the name was missed out. The correct email address for Peter is: p_haywood@madasafish.com

Trumpeter & Pocketbond Ltd

This year there will be a new category in the modelling competition at IPMS Scale Model World held in Telford, Shropshire over the weekend 18th & 19th November for Trumpeter kits - built straight from the box. There are four categories - Aircraft, Ships, Armour and Other. The winner in each category will receive £100 of Trumpeter kits, and the runners up £50 worth. The winning models from each category will be judged further and the prize for the overall winner is a trip to Hong Kong and a trip to the Trumpeter factory in China for two people!

'Scale Model World' is the annual two-day exhibition organized by IPMS (UK) at Telford (Shropshire, M52), featuring model traders, Local IPMS branches, Special Interest Groups, and the annual model Competition. Participants must be members of IPMS (UK) and resident in the UK. Membership of IPMS costs £20 per year - this includes free entry to the two-day event at Telford and a members' magazine several times a year. There is a registration fee of £2 and entries must be pre-registered by 30th October. See www.ipms-uk.co.uk for full details.

Or send: (1) A standard SAE to for entry details, or, (2) An A4 envelope stamped with 75p for entry details and a Pocketbond Catalogue or, (3) Send £3.50 in loose stamps for entry details and a Trumpeter catalogue to, Pocketbond Limited, PO Box 80, Welwyn, AL6 0ND.

Richard Kent - Competitions Secretary - IPMSshadomobile@aol.com said:

"This competition will create great interest in modelling - much more than a cash prize - and we think there will be stiff competition to win this prize, as well as bringing in people who do not normally

enter competitions. The 'Standard Kit - out of the box category' creates a level playing field for all modellers.

Trumpeter is innovative in model development and they continue to innovate with this superb prize. The first prize is a once in a lifetime opportunity for any modeller and the award first and second category prizes is also superb. We are very pleased that Trumpeter & Pocketbond Ltd have offered this prize and have agreed a five-year exclusivity with them. I only wish I could enter myself.

The Great British Model Soldier Show

Following the success of this year's Show, the British Model Soldier Society is already looking to the future.

The National Committee of the Society has agreed that it is important to settle on a venue and a date in the calendar so that other organizations are aware of these and clashes can be avoided. In an ideal world the Show would have returned next year to its traditional date of the fourth Saturday in April, but unfortunately, due to a prior booking, this has not been possible. Accordingly the Great British Model Soldier Show will take place in the Edward and Alexandra Suite at the Royal National Hotel, Russell Square on Saturday, 21st April 2007 and the following year on Saturday 26th April 2008 at the same venue.

It is intended that the event will be a focus for the very best of all aspects of military modelling and collecting in this country. Alongside the now traditional open competitions there will be superb displays and demonstrations as well as an opportunity for modellers to stock up on their needs at the trade stands. This will be one of the key events in the military modelling calendar, so please note these dates now! Traders wishing to take up one of the limited spaces at this high profile event should contact Alex Riches Tel: 0298 698 7334 as soon as possible. For any other information, please contact Michael Creese Tel: 01728 602746.

Military Odyssey

The World's Largest Multi-Period Historical & Living History Re-enactment Event and Pageant, Military Odyssey will be held over the Bank Holiday Weekend 26th, 27th & 28th August 2006 at the Kent Show Ground, Detling, near Maidstone in Kent.

Military Odyssey is the UK's largest multi-period military and historical re-enactment extravaganza and one of the country's premier events, with many of the country's largest and finest groups signed up for this annual show. Being a family oriented event, this August Bank Holiday event now being a three day show gives a chance for those that have missed it over the last five years the opportunity to get their Hands on History.

A new and larger battlefield is on site and will be filled with recreations of past historical events; five large-scale battles will take place on each day and over the three days of the event, some with tanks and artillery, complete with limbers horses and tractors all firing, and showing their uses.

There will be, for many people, a once in a lifetime opportunity to see groups using weaponry that has not been seen for over 60 years. Many groups and displays at Military Odyssey each year try to bring something different to help in the discovery of our histo-

ry for all that attend. The team at Military Odyssey are working hard to get this year's event as near to the real thing as possible, making this a real experience, with fantastic displays put on by some of the country's and European top Living History Groups.

Also featured, (conditions permitting) will be flying over the show ground, with fighter aircraft on all three days that will take part in the WWII battles.

This year for the first time, the football match that was portrayed in the Warner Brothers Entertainment Incorporated film, *Escape to Victory* will be recreated. This football match was the base of this fine box-office film and will be played on each day of the event between the allied and axis players. For the football enthusiast, this will be an opportunity to see the old football kit being worn and the authenticity of the game that was played in the film, and based on a 1944 theme.

A copy of the Bayeux Tapestry crafted by a Kentish man will be on show. It has taken over 10 years of hand stitching to make at some 130 stitches per inch and there's still approximately two more years work before being finally completed, this masterpiece is really something to see.

Groups covering all periods are attending; Stone Age Man, The Egyptians, Romans, Ancient Greeks, Celts, Vikings, Saxons, Normans, Medieval Jousting Knights, Medieval Households, English Civil War will be covered by ECWS this year, hopefully fielding some 300 troopers and The Napoleonic Groups who will be fielding over 200 participants, from all over the world will be showing their life and the hard times during this period in history, including Napoleonic period troopers from Poland, Russia, and France, the 7th Hussars, Polish Lancers and the 9th New York Volunteer Cavalry of the American Civil War.

Second World War Forces at the event will be represented by groups such as 'The Garrison' with, for the first time seen a full battery of 25pdr guns and limbers, an ATS Anti-Aircraft battery, plus more of the UK's largest WWII groups. 'The Yanks are Coming' with the airborne, Screaming Eagles Living History Group, the 29th Historical Association and the 514th, 82nd and other regiments. The Allied contingent is completed by the presence of the Red Army's Second Guards and their 'Woman at Work' display. The Axis Forces are fielding a strong contingent, including the German, Second Battle Group and FJR2, 4 and 6 along with other German forces, plus one or two special surprises, which will include the use of tanks and aircraft.

For later conflict there will be the groups representing the Warsaw Pact Forces, The Vietnam Special Forces, Airborne and Fire Base groups. The American Infantry Preservation Society will be confronting the North Vietnamese Infantry. The Desert Storm group and units from Her Majesty's Armed Forces will bring over 2,000 + years of History to date.

With more than 4,500 living History enthusiasts expected to re-enact our past with pitched battles, skirmishes, tactics and drill sessions, along with cavalry ranks and hundreds of all of these groups, their civilian counterparts, both men and woman, will show the life and times in our history. The Military Odyssey team are leaving nothing to chance; a full Bank Holiday Weekend's entertainment for all the family is being created.

Apart from the public being able to get their Hands on History, they will also be able to smell and hear 2,000 + years of history unveil before their eyes. Visitors will also be

able to admire some rare military vehicles and browse amongst hundreds of indoor and outdoor trade stalls selling a huge range of historical & collectable goods.

For further information contact event organizer, Gary Howard or one of his team on: Tel: 01892 730830 info@military-odyssey.com Visit the Military Odyssey Website on www.military-odyssey.com

MAFVA London Branch

The London Branch of the Miniature Armoured Fighting Vehicle Association will hold their Annual Open Competitions and Show at St Mary's Church Hall, Edith Road, West Kensington on 14th October 2006. The doors will be open 10.30am until 5pm. Admission fee is £2 for adults and £1 for 5 - 16 years and Senior Citizens.

The Show includes a model competition, which is open to members and non-members. Club displays will feature and refreshments will be available at the venue. For further information please contact Branch Committee Member, Peter Bailey, 8 Vicarage Drive, Northfleet Kent DA11 9HA. Tel: 01474 536232.

TWENOT 30 Years

TWENOT, the Dutch Armour Association, will celebrate their 30th Anniversary with a big, international military modelling show on 14th October 2006, at the Mercure Hotel in Bunnik, The Netherlands. Bunnik is located in the centre of Holland, near Utrecht next to the A12 Motorway. The entrance fee is three Euros; for children under 12 years and TWENOT members entrance is free.

The Show will feature a large model competition and lots of international traders who specialize in military books, models and accessories and some manufacturers will present interesting new models on the day. A big raffle will also be part of the events with very some interesting prizes.

As special guests, Steve Zaloga, Ron Volstad and Stefan Müller-Herdmertens will attend the Show and give lectures on AFV Modelling and Figure Painting. In addition to the lectures and demonstrations there will be an area for radio controlled model displays.

Further information is available from www.twenot.nl/30jaar or contact the TWENOT secretary: Tamboerpad 22, 7071 XA ULFT, Netherlands Fax: +31(0)573453392, m.j.h.tempels@wanadoo.nl

Gravesham Annual Open

Gravesham Military Modelling Society will be holding their annual open day and competition on Saturday, 7th October 2006. The Society have a new venue for this year at The North West Kent College of Technology, Lower Higham Road, Chalk, Gravesend, Kent, with free parking on the campus. Doors will open at 10.30am with local model clubs and a variety of traders in attendance. The competition is open to all with a maximum of three entries per person per class. These will include Figures, AFVs, Dioramas, Conversions and Scratch Builds plus our Best of Show Award.

Light refreshments will be available on the day and our famous raffle will take place just before the prize giving closing the show at 4.30pm. If you have access to the Internet and wish to visit an on line map site, the postcode is DA12 2JJ. For further details about the Show and bookings please contact Jean Bickerstaff, Tel: 01474 327003.



EURO MILITAIRE 2006 TRADERS

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Andrea Miniatures
Armstrong Bases
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U-Models

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DESPATCH

Readers' Letters and E-mails

● The Editor welcomes readers' letters and e-mails for publication which must always be accompanied by the writer's full name and address. The address will be published in full if the letter or e-mail is interpreted as a request for information to the readership. Otherwise, only the writer's full name will be published.

● Letters and e-mails are not, under any circumstances, altered or severely edited; however, they may be shortened because of space limitations. The Editor is not necessarily in agreement with the views expressed in published readers' correspondence.

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'Ideas Bank'

Dear Sir,
I have an idea for your magazine. What would the readers think of an ideas bank similar to *Military Miniatures in Review* as I see the more badgering we give the producers the more likely they may actually listen.

I am a German tank modeller, but, I see there are major gaps in the 'Blitzkrieg' area 1939-41, like a 1:35 scale Cruiser Tank A10, a Vickers Mark VI, AMR 33 or 35. These would be a start and also they would help people who want to do the exotic German conversion of these tanks and also resin conversions for the 'cottage' industry.

Whilst writing can anybody help with the rear view of the 10.5cm armed Char B1 bis used by the Germans? I need really a view in the fighting compartment area.

Also I am interested in the 75mm turreted half-track known as *Panzerelbstfahrlafette III Ausf M*. Two were sent to North Africa I have Tom Jentz's book, *Rommel's Funnies* and the regular publications, but none show the rear view, supposed to resemble a *PzKpfw III*, or a top view. Thanks!

Ross Hackett
Email ross.hackett@ntlworld.com

Wading Crusader AA

Dear Ken,
Does anyone have details of the Deep Wading Equipment fitted to the Crusader Mark III AA tanks that landed at Normandy in 1944, which they would be willing to supply me with for a project I am doing?
Frank A.R. Coleman
49 Mill Road, Cromer, Norfolk NR27 0AD.

Tyre Troubles

Dear Ken,
Following a little clarification from the author, I feel I owe Chris Lloyd Staples a humble apology for my comments in last



Snake in the Grass'

Dear Ken,
Frank V. De Sisto's article on the Panzer IV/70 (V) 'Snake in the Grass' in *Mil Mod* No.6 prompted me to take a few photographs of the example held in the Canadian War Museum's collection.

Twenty years ago, this vehicle was on outdoor display at the Canadian War Museum at its old location on Sussex Drive. For many years it was on indoor display in the old CWM Vimy House warehouse. With the opening of the new Canadian War Museum at Vimy Place on Lebreton Flats in Ottawa, this and all of the other vehicles in the collection are wisely on indoor display.

The vehicle has been repainted a couple of times and is missing a number of fittings, but overall is in pretty good shape. Any AFV enthusiast visiting Ottawa would be well advised to visit the CWM to see this and the many other vehicles in its collection.

Ed Storey



Israeli Markings

Dear Sir,
I'm almost finished building the Tamiya 1:35 scale Merkava model and am having trouble identifying the markings.

On the right front mudguard there are, what I call, four 'white sevens' of differing sizes, and on the left front is a white circle containing what, to me, resembles a British WWI helmet with straps undone and a thin 'spike' on top. The helmet is green and the circle is in white.

On the rear panel, in the middle, is half a swastika, for want of a better word, with a 'thickish' straight line through it, beside it is a squared number 3, both are in white.

I do hope you can help me out. Please forgive my forwardness and good luck with the magazine.

Steve Payne

12 Palmer Street, Hyde Park, Doncaster, South Yorkshire DN4 5DD.

Readers who can help Steve, please contact him direct. Ed.



month's 'Despatch' regarding the correct tread pattern for Dunlop 'Cross Country' tyres, Chris mentions in his article on the Austin K2 Ambulance in *MM* Vol.36 No.7.

As he points out, however the tyres are fitted the tread will always appear the same; that is, running bottom left to top right of the tyre. The Accurate Armour tyres do, of course, have the exact opposite of this pattern and as such, are incorrect.

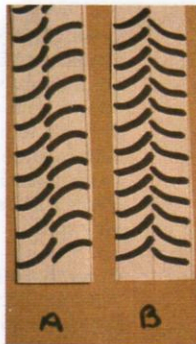
In future I'll try to engage my brain before firing off the correspondence! Fortunately Chris has taken my faux pas in good heart!

Alex Hill
Email

Tyre Test

Dear Ken,
I see the question of the K2 'Katy' Ambulance cross-country tyres was mentioned again in the latest issue of *Military Modelling*, Vol.36 No.08.

However, the letter by Alex Hill is not correct. Chris Lloyd-Staples is quite correct in saying that the tyres for the K2 Ambulance are the wrong way round. This pattern, as seen in the pictures of the real vehicle shown in the article and in the film 'Ice Cold in Alex', show the pattern running from bottom left to top right. It is impossible to reverse this tread pattern on this particular tyre by putting the tyres on a different way round. Chevron type tyre patterns can be reversed if fitted incorrectly.



A simple test is as shown in the diagram. The tread pattern marked 'A' (Dunlop 'Trak'. Ed.) is the one used on the K2 'Katy', if you get a strip of paper and mark the pattern as shown, then roll it into a circle to represent a wheel, face the tread towards you and note that whichever way you rotate the circle the tread pattern will never change and will always run bottom left to top right.

On the other hand, if you do the same with the chevron tread pattern marked 'B' (Goodyear, Firestone, India, etc. Ed.) the angle of the chevron will change depending on the direction you rotate the wheel.

In my opinion the two pictures supplied by Alex Hill do not show any of the tyres in a different orientation, all three are running bottom left to top right.

I have the Accurate Armour kit and whichever way you rotate the wheels on the kit they also remain the same, incorrect! The pattern running top left to bottom right.

Perhaps for the perfectionists, Accurate Armour could make a set of replacement wheels with the tread the correct way round, after all, they call themselves 'ACCURATE Armour.'

Keith Warrington

Email

It's easy to confuse British cross-country tyre tread patterns used during World War Two and later - Dunlop 'Trak' and the chevron patterns - Goodyear 'Supergrip', Firestone 'Ground Grip' and India 'Super Traction', etc. Keith's paper strip test illustrates the difference simply and clearly. Ed.

Guardian Angel

Geoffrey Illsley adds a partner to David Grieve's 150mm figure... And makes a few modifications to his masterwork

Lee Chandler's 'in depth' article in *Military Modelling* November 2005 (Vol.35 No.12) inspired me to make a start on David Grieve's superb 150mm figure of 'Our Nation's Hero', quite his best creation to date in a wonderful portfolio of accomplished work. Having a weakness for models of the fair sex, I had settled on scratch building Emma, Lady Hamilton to accompany the great Nelson, as she had done in life.

Researching the Subject

Visual research materials for Nelson are abundant, but for Emma they are limited, particularly as she might have appeared with him in 1805. The numerous paintings of her in her youth when she was active as a courtesan and artist's model are not relevant. By the time of her dalliance with Nelson she had put on weight, particularly after the birth of their daughter Horatia. Although outrageous cartoons portray her as grotesque, she was by all accounts still strikingly beautiful.



The design of Emma's hat came from from The Mode in Hats and Headdress by R. Turner Wilcox (Revised 1959) published by Charles Scribner & Sons, New York & London.

Although Emma's husband Sir William Hamilton had died in 1803, Horatio remained married to Lady Nelson (formerly Frances 'Fanny' Nisbet). This did not temper 'the lovers' confidence in appearing openly together, or their tendency to show off to an adoring public. The price they paid was to remain shunned by Royalty and 'polite society' for their overtly scandalous relationship. It is unlikely, therefore, that the couple would have been attending Court, indeed, when making a passing visit to Blenheim Palace they had been refused admission by the then Duke of Marlborough, although it seems His Grace did reluctantly allow servants to take refreshments out to their waiting carriage!

Setting the Scene

So, where would Nelson be going, dressed up to the nines, other than to the Admiralty? It seems entirely feasible that as a couple they might have been on their way to a formal function thrown by one of their small circle of close friends, justifying Nelson being dressed in his best Full Dress uniform, and for Emma to be in evening wear.

To avoid resculpting Nelson's 'foot on a grating' stance, I substituted a pair of domestic steps. I had considered setting the couple in the doorway of Merton Place, the home they shared all too briefly, but having found sketches of the portico, I quickly rejected the idea, as the resulting base would have been massive in 150mm scale. A mere token of two steps with gravel at the foot was adopted instead, in a York stone finish likely to have existed at the anonymous location of their evening out.





Miniature by Adam Buck dated 15th November 1804 said to be of Emma Hamilton. The Moses Lazarus Collection, The Metropolitan Museum of Art, New York.

Emma Hamilton

Reference books on period costume revealed a selection of period evening dresses, headgear, footwear and accessories. All that remained was to search out items personal to Lady Hamilton. Last year's exhibition 'Nelson and Napoleon' at the National Maritime Museum, Greenwich, coupled with their excellent Website and generously helpful staff proved indispensable in my quest. Their resources provided the best portrait likeness of her, plus items of jewellery.

A visit to the Royal Naval Museum at Portsmouth generated some special details including access to the original Order of St John presented for her work in the relief of starvation and suffering on the island of Malta following French occupation in 1789. She was particularly proud of this award, which, suspended from a bow of black ribbon I was anxious to include in my figure, as it featured prominently in the pastel portrait by Schmidt. This work, together with a portrait of Nelson, were executed in 1800 when the couple were passing through Dresden. It was Nelson's favourite representation of her, and he hung it in his great cabin on HMS *Victory*, where it may be seen to this day. He called it his 'Guardian Angel' as he felt it brought him good fortune in his later campaigns. However, in many ways it was Nelson who was Emma's guardian angel during his lifetime, particularly in the light of the disgraceful way she was treated as soon as he died, in disregard of his 'Bequest to the Nation'. On another level Nelson was himself the guardian angel of the people of Britain and so it seemed natural to call the finished model by the same title.

Constructional Methods

I regret now not taking 'in progress' photographs during the sculpture of Emma, but then I was not expecting to do a write up. The work involved applying successive layers of Magic Sculpt over a female nude torso, which I had previously rough cast in resin. Arms, hands and feet were built up gradually over copper wire armatures set into the torso, which assisted in giving correct skeletal proportion as well as support. All early putty layers were put on with just a bit too much bulk, so that after hardening I could file and sand back with great control to maintain correct anatomy.



Modern miniature watercolour of Emma Hamilton, after the pastel portrait by Johann Heinrich Schmidt. Nelson kept the picture in his cabin on *Victory* where it remains to this day.

In producing drapery I made deliberate use of the underlying physique, with no additional putty being added where a thigh or hip pressed against the inside of the fabric. Only where the garment had falls or folds, was additional putty applied and then blended in. At each stage I made the surface as smooth as possible with wet and dry sanding sticks. Doing this 'as you go' is tedious, but it does avoid surface blemishes becoming noticeable at a later stage when further additions may make access awkward.

On nearing completion I painted on successive layers of Gunze Sangyo 'Mr Surfacer', starting with 500 grade, then 1000, and finally 1200 - rubbing down with progressively finer Micro Mesh pads and cloths for a perfect smooth final finish. There seems to be no short cut to this chore if you want to avoid discovering a poor surface finish after you start to paint the piece.

I found that repeated applications of Mr Surfacer with a small brush were ideal in building up small facial features, for example eyebrows, the lobes of a nose or detail of an ear, or the bones of a wrist or knuckles. Using a larger brush I was able to fatten cheeks or build up a chin, the edges blending perfectly with the underlying layer.

Edges of garments and embroidery, such as the details on the bodice and hem of the skirt were produced by 'tacking' fine wire in place with tiny dots of super glue. Do this directly on the nude torso in the case where the edge of an undergarment is showing. You bend and shape the wire as you go, only tacking it down when the position and curvature of the wire is exactly right. The precision with which this can be done with comparative ease is astonishing. Once fully tacked and trimmed off, the wire is permanently fixed by applying super glue along its length. Do this from the side of the wire that will be covered up by later applications of putty to avoid disfiguring any revealed smooth area, such as flesh or small details that you want to preserve. Putty was then applied up to and flush with the wire edging, smoothed to uniform thickness and then textured whilst still workable.



Extracts from a plate by Faith Jacques of day and evening dress 1800-05 in Hugh Evelyn's *History of Costume. Vol.1 19th Century* provided the ideas for Emma's dress and handbag.



Modellers are familiar with the technique of making rings by wrapping soft wire around a drill shank, slipping off the resulting 'coil', inserting a knife blade or fine pointed scissors and cutting the coil at right angles into masses of individual perfectly formed circles. The laurel leaves on the hat brim and handbag were made by adapting this procedure. Instead of a drill

Shank, however, the wire was wrapped round a craft knife blade ground to the correct cross section. Leave the cutting edge sharp as this allows you to cut the 'coils' by pressing down firmly on a hard surface (CAUTION - use eye protection in case the blade snaps). If done correctly, hey presto! Dozens of identical outline leaves. The centre stem of the laurel is simply wire glued in place.



The leaves require precision positioning, one at a time. Use a small brush wetted with diluted cellulose dope to pick up a leaf and then to push it into position. The dope acts as a quick-drying glue/varnish, evaporates with virtually no residue, but is immediately repositionable with a touch of cellulose thinners if the position of the wire leaf is not exactly as you want. The technique is very useful in manoeuvring tiny etched brass parts. Once the leaves are all positioned they can be fixed with a small drop of super glue applied inside the leaf outline.

Mr Surfacer was used to fill the leaves, as in this case I did not want them to remain as outline only. Emma's three-strand necklace, on which enamel miniatures are mounted, was made by tacking three lengths of fine wire directly to her neck. The tacking points being carefully marked to disappear under the centre of each miniature. The miniatures were each sculpted in situ from small balls of putty flattened and shaped over the wire. They need to be carefully smoothed with a slightly convex surface. They will eventually be painted after you have applied skin tones to the neck. After all of the miniatures have been painted they will need to be varnished several times with a hard varnish (Tamiya clear acrylic varnish is ideal) to simulate enamelling, and to enable your gold paint to float out to make a highly reflective surface representing the frame mounts for each miniature. Do not use a gold paint that is incompatible with the acrylic varnish, as to clean off a gloopy mess will mean stripping off the skin tones, etc.

Emma's hair was sculptured from Duro (Kneadatite), which is particularly sticky when freshly mixed. I pushed small balls of Duro against her hairline at the edge of the hat until I was sure it had a good foothold. With a pair of tweezers a small part of the Duro was pulled slowly away. This resulted in a thin strand rather like stretched bubble



Emma's Order of St John award of which she was very proud and wore on most occasions.

gum coming away from its source until finally it breaks, leaving an incredibly thin tail. The tail can then be manipulated into curls and twists of hair, to simulate the coiffure favoured by Emma according to the Schmidt portrait and a helpful profile miniature believed to be of Emma, which I found on the Metropolitan Art Museum Website.

Partially cured Duro was also used to make thin tapes to fashion the ribbon for the bow from which the Order of St. John is sus-

pending, although it could as easily have been made from thin lead sheeting, as were the bows on her shoes.

The velvet train at the back of the dress and its principal folds were crudely shaped using thin, aluminium sheeting salvaged from a Palmolive shaving soap tube. Thin pewter or lead sheeting would work equally well. Although initially this was a rather flimsy structure, once it was bulked out with sausages of Magic Sculpt keyed on with super glue, and rigorously filed to shape, with further in-fills of putty the structure became extremely rigid. This allowed refinement of the folds and drapery with greater ease of handling. Much use of burrs and grinders mounted in a mini drill followed by re-puttying and making good were required.

In sculpting drapery, working from illustrations and from real folded cloth of a similar nature yields results more credible than guesswork. The train was only fixed to the body after the lower part of the dress and the underside of the train had been painted, as access by brush would have been impossible after they had been assembled. The train was finally attached with a thin 'corset' of Magic Sculpt between the mating surfaces with a liberal dose of super glue and the whole thing pressed together firmly.

By this method the soft putty deploys to fill all gaps and spaces and is instantly anchored by the glue. When set, the top of the train was 'faired in' to the dress at the waist, with waistband and folds to match, plus the pre-painted bow and tassels fabricated from fine copper wire twisted up in a drill. The cone shaped black agate pendant earrings were turned from plastic rod mounted in a mini drill chuck. The blunt end was drilled with a No.80 drill, as was the fitting sculpted on to each of Emma's ear lobes, and the hanging part of the earring fixed to its mounting by a single piece of fine wire



Horatio Nelson by Sir William Beechey. Norfolk Museums & Archaeology Service.

inserted into the opposing holes so that the component parts just touch. A minute dot of super glue completes the join, but the wire remains sufficiently bendable to adjust the plumb angle of the pendent part to the set of Emma's head.

All painting was carried out with Chromacolour, except for skin tones and hair, where the Chromacolour was used as undercoat with final finishing carried out with artist's oils with appropriate amounts of Liquin added to achieve required surface texture and reflectance.

David Grieve's Nelson

David Grieve has achieved a cracking likeness of his subject, probably the most difficult element to achieve in all sculpture. It is unmistakably Nelson. Having had the benefit of studying original and photographic copies of two of the three versions of Nelson's life mask, I dared with considerable trepidation to make a reduction in the size and angle of Nelson's nose as well as a softening of his jaw line. In particular I was seeking to make his face gentler in aspect, a quality that had struck me in most of the portraits of him.

I also resisted painting him in dark skin tones. This may have suited his ships' crews, but it seemed to me that Nelson spent much of his later career as an Admiral inside, rather than outside when afloat, plus a good deal of time 'on the beach'. In addition he had suffered a catalogue of injuries and diseases and could hardly be described as in robust good health. Many commentators remarked on his pale appearance and slight stature. I have, therefore, chosen a skin tone scarcely deeper than Emma's. I feel the choice is justified in comparison with the outstanding full length 1801 portrait by Sir William Beechey in Blackfriars Hall, Norwich.

In trawling for information on Emma, I came across quantities of reference on Nelson's uniforms, medals and orders. A number of doubts arose that led me to depart from David Grieve's brief for the finishing of his figure, particularly with reference to the better portraits of Nelson executed by artists who had the benefit of the living original before their very eyes, rather than works executed years after his death, or which were derivative, in the sense of etchings based on the work of other artists.



A life mask of Lord Nelson at Portsmouth.

Awards

The Badge and Sash of the Grand Cross of the Order of St. Ferdinand and of Merit - the kit finishing instructions state that the sash is of blue/green silk with a cream edging, and the fleur-de-lis decoration on the badge is said to be light blue. This is one of the very few original Nelson relics to survive successive thefts from Greenwich Hospital.

The current custodians, the National Maritime Museum, state on their Website that the sash....'has faded in colour from the original dark blue with red borders, the colours of the Royal House of the Kingdom of the Two Sicilies.' In their Website photo, the fleurs-de-lis on the NMM relic appears to have a blue grey appearance, but it is apparent from a Website dealing specifically with the orders and medals of the Royal House that the sash colour is royal blue with a red edge and that the badge has white enamel fleurs-de-lis, and that the NMM photo suffers



ABOVE LEFT: Jewelled brooch of the Order of the Crescent, from www.turkishmedals.net courtesy of Dix, Noonan and Web Auctioneers. ABOVE RIGHT: The embroidered Order of the Crescent shown correct and how it appears on Nelson's coat - upside down! BELOW: Sash badge from the Order of St Ferdinand and of Merit.



from a blue cast, www.realcasadiborbone.it the correct colours appear in Beechey's portrait.

The Sash of the Order of the Bath is described in the instructions as of crimson silk, which is indeed the colour of the Military Division of the Order today. However, most of the contemporary artist paintings of Nelson show the colour of the sash nearer to scarlet silk rather than crimson. In correspondence Amy Miller, Curator, Decorative Arts and Culture at the National Maritime Museum replies on this point... 'The colour of the Order as shown in the portraits is correct - the ribbon and sash is nearer scarlet than crimson...'

The Ottoman Order of the Crescent - the Sultan of Turkey, Selim III, founded the Order in 1799 and Nelson was the first to receive it for his victory at the Nile. He had a number of replicas of all his Orders, including the Order of the Crescent embroidered in silver and gold bullion and coloured thread, which he wore constantly on his uniform coats, both Full Dress and Undress.

The silver radiant star of this Order is of lozenge shape, with a star and crescent in the centre. The Order was intended to be worn with the crescent to the left of star, but is currently sewn upside-down on Nelson's Trafalgar coat and two of his five other surviving coats, as well as being shown upside-down in the portrait by Arthur Devis.

When the Admiral's body in its barrel of brandy (and presumably minus clothing) was repatriated, Devis attended Nelson's autopsy by Dr Beatty, the surgeon on HMS *Victory*, and made numerous sketches of the crew, of the orlop deck and of Nelson himself. He worked them into his famous 'Death of Nelson' painting, as well as producing the portrait referred to. This was at least a month post mortem, and I have no greater faith in the



accuracy of the portrait than the accuracy of the death scene, where the point of entry of Nelson's fatal wound is shown on his right shoulder, whereas correctly it was on his left.

Nelson's Trafalgar coat was badly blood-stained, mainly from being rolled up and used as a pillow under the head of Midshipman Westphal lying near to where Nelson was being treated on the orlop deck of the flagship. Blood from his scalp wound glued Westphal to the left epaulette requiring it to be partly cut away enlarging the damage done by the fatal musket ball. The issue arises of what became of the embroidered orders when the coat was washed to get rid of the worst of the bloodstains? It is entirely likely that they would have been removed to prevent them from damage, and for them to have been sewn back again afterwards.

The Order of the Crescent is the only one of his badges that could possibly be sewn back on again upside-down as the others have lettering, or a human figure or crowns in their design which even the most ignorant sailmaker or seamstress would only replace the right way up. The Order of the Crescent has the same outline shape whether or not it is inverted. Most of the contemporary paintings of Nelson show the badge correctly ori-



Horatio Nelson and his Guardian Angel Emma Hamilton - Geoff's 150mm vignette won a gold medal at the recent MFCA Show at Valley Forge in Philadelphia.

ented, in particular the great work by Sir William Beechey already mentioned. In an age of protocol, it is unlikely that Nelson would knowingly wear the most prestigious award of the Ottoman Empire in a manner calculated to offend his benefactor.

In conversation with the welcome staff at the Royal Naval Museum, where they have a manikin of Nelson in a facsimile of the Trafalgar coat, I was told of a complaint from a Turkish couple who were visiting, and who were black affronted at noticing the inverted Order!

Alterations and Techniques

As sculpted, David Grieve's model has the Order upside-down, and the star has only four points. I have removed the centre detail and have resculpted the crescent on the left and the then current six-point star to its right. (On the present flag of Turkey, the star has five points introduced in c.1844).

The edges of the Order as cast have also been ground away to simulate the tapering outer rays of the embroidered version of the award. I also sculpted the missing gold braid on the inner edges of Nelson's hat, my copy of the model having been bought at its release at Euro Militaire last year. Lee Chandler's article mentions that David Grieve is correcting this, but it is relatively straightforward to do it yourself if you have one of the earlier copies of the kit. Other than the several points detailed above, the model is finished as per David's guidelines.

The sashes were first base coated in silver for the lower sash (St. Ferdinand) and gold for the upper sash (Bath). The blue portion was painted using Tamiya Clear Blue acrylic X23, and the red edging on the lower sash and the whole of the upper sash were given coats of Tamiya Clear Red acrylic X27, until I had achieved the desired depth of colour.

At this point the sashes have a high gloss finish, and look awful and tacky. The 'alchemy' begins with thin successive coats of flat varnish. These completely transform the garish appearance of the paint, replacing the cheap looking gloss with a deep lustre that appears to be coming from within the sash. According to how many layers of flat varnish you apply will depend whether

the fabric appears to be made of silk, or with more varnish, to be made of satin. Effective results may be achieved with careful use of a hand brush, but I have to admit that it is easier to apply this effect by airbrush, as the layers are more even and controllable.

I found it easier to airbrush the gold lace prior to over painting the Dress Jacket with Navy Blue. Rose gold powders, or SNJ polishing powders may be successfully applied by airbrush in the following way. Put several drops of cellulose dope in the well of your mixing palette. Heavily dilute with cellulose thinners, at least 10:1. Stir with a clean brush that you intend to use to transfer the mix to the airbrush. I find a No.7 round synthetic is best for this job. Dip the damp brush into the gold powder just enough to pick up powder on the outside of the brush, you do not need a heavy volume of powder for this. Transfer the brush with powder sticking to it directly to your diluted dope mixture. Stir it in vigorously; you will observe the little particles swirling around. Many particles float to the surface and others tend to sink. Repeatedly stir the mix to maintain them in suspension and transfer several brush loads of this mixture to the airbrush, and spray at once before the powder settles out. The quality of the gold finish obtained has to be seen, to be believed.

The cellulose dope acts as an instantly drying medium, with the added advantage that it is not dissolved by any subsequent

applications of other media, such as oils, acrylics or enamels. The gold may be tinted and subtle effects obtained with transparent glazes of oils and other media with perfect safety. As dope is easily diluted with cellulose thinners or acetone, so airbrush cleanup is a breeze.

The uniform fabrics were executed in Chromacolour and Pelikan Plaka or a combination of the two. I mixed my own Navy Blue after considerable trial and error with Chromacolour ingredients, keeping the resulting mix in an empty Humbrol type tinlet for further use and touch ups.

As with Emma, all flesh and other none-flat surfaces, such as hair, shoes, sword scabbard were painted with Chromacolour as an undercoat followed by a top dressing of artists' oils, with the addition of as much Liquin as needed to achieve the required texture. Buckles, buttons, sword hilt and similar 'bright' work were carefully hard varnished using Tamiya Clear acrylic X22, before floating on gold printers' ink in an enamel medium.

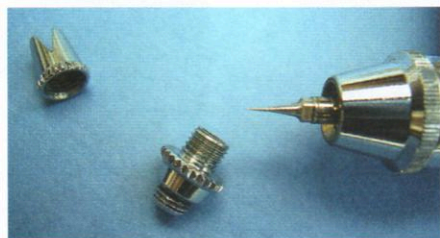
Now for the bust...



Eclipsing the Eclipse

Rob Henden, tests an Iwata 'Custom Micron B' top of the range airbrush

Iwata's Custom Micron B.



Paint flow can be further controlled by the additional control set screw with four settings at the end of the handle of the airbrush. This is a great help at close distances from the model as it helps to prevent those sudden unexpected spurts of unwanted paint, and aids control to a new level of precision control.

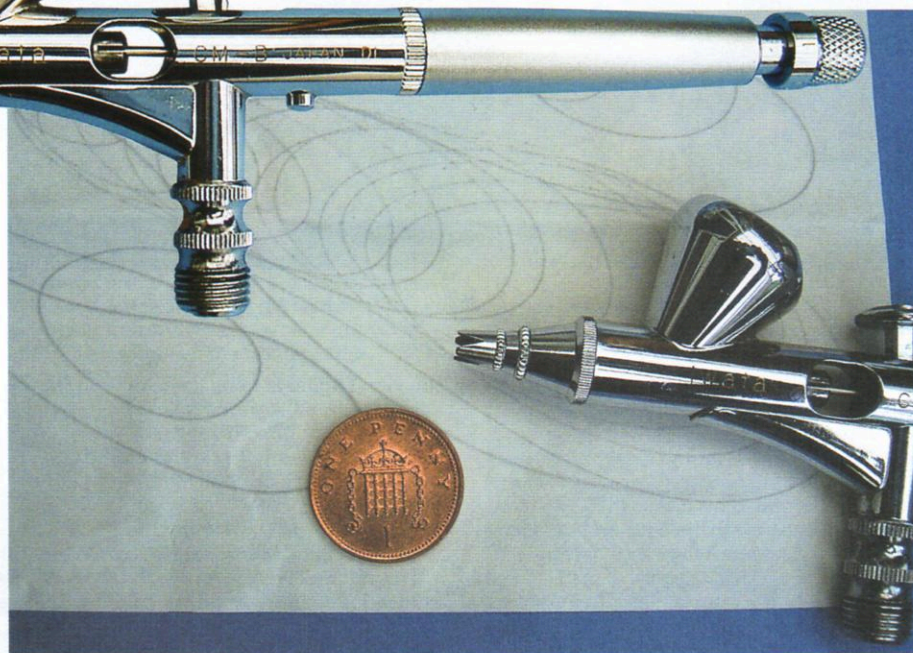


Unlike some other airbrushes in the Iwata range the nozzle assemblies used on the Micron range are matched and polished at the factory for optimum performance. The nozzle tips on Iwata airbrushes are made from a steel alloy, not chrome plated brass, which is much softer and less durable.

In recent times the term 'to airbrush' has mainly become associated with eradicating cellulite and other imperfections from photographs of pop-stars and super-models, which is a gross misuse of the term, as this process is now achieved using computer software such as Adobe Photoshop rather than with the airbrush itself, which was traditionally used for this task years ago.

In the case of photographic retouching, new technology has left the airbrush largely redundant, but is still by far the best instrument to create artwork, and paint finishes in both two and three-dimensional forms.

It was the use of the airbrush to create murals and custom paint-jobs on Custom



The Custom Micron B has a gravity top feed cup and is capable of spraying very fine lines or covering large areas on a model.

Cars in the late 1970s that first intrigued me, but as I had just started to drive, dreams of a custom paint-job were to be just a 'pipe-dream', as painting a car is one of the most exacting and precise applications, and my airbrushing days had just started.

As I worked for a graphics publishing company in the early 1980s, I was in a good place to do a bit of research and fortunately one of the editorial staff, advised me and sold me my first airbrush in 1980, second hand, for the princely sum of £5!

Like most beginners in the hobby, I made many mistakes and ruined quite a few models, but also learnt a great deal from this.

Fast forward to the mid-1990s, when after using a variety of airbrushes including my faithful badger 150 for several years, I was introduced to the Iwata Eclipse SBS. This model is really the perfect tool that can be used for any scale, and I find it to be a very versatile and flexible airbrush for most modelling applications, but I was intrigued when The Airbrush Company Ltd offered me the chance to try the Iwata Micron B.

Micron Optimum Performance

The Iwata Custom Micron range of airbrushes are aimed at the experienced enthusiast and professional, who require a finer degree of control, to produce very fine detail work. As a car enthusiast, I could describe the Custom Micron as the Porsche 911 and the Eclipse is a Golf GTI, but what I mean to say is that the Micron is engineered for optimum performance for the

task of spraying very finely, as the Porsche is designed for speed, and the Golf GTI is quite fast enough for most drivers, but can also be used for more down to earth, mundane tasks.

The Custom Micron is a double-action airbrush which means that when the main control lever is depressed it will activate the air, and will only produce a flow of paint to the tip when the lever is pulled towards the back of the airbrush, unlike a single action airbrush which releases air and paint simultaneously when the lever is used.

Unlike some other airbrushes in the Iwata range the nozzle assemblies used on the Micron range are matched and polished at the factory for optimum performance. This is both good and bad, as the paint flow and atomization is second to none, but the down side of this is that if part of the spray head is damaged, a complete head assembly would be required. Having pointed this out, I would like to stress that the only time I have needed to replace parts on my Eclipse were because of clumsiness when I dropped it, and not due to normal wear and tear.

The nozzle tips on Iwata airbrushes are made from a steel alloy unlike most other manufacturers who still use brass, which is much softer and less durable.

The 'Road Test'

To see just what could be achieved with the Custom Micron I decided to use it to paint three test models of varying scales, all smaller than the popular 1:35 scale. By testing the



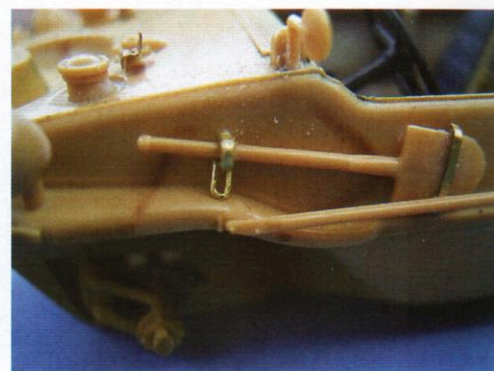
ABOVE: Lifecolor acrylic paint is made in Italy and comes in 22ml pots and needs thinning before using in the airbrush. BELOW: Only minor additions were made to the Tamiya kit and most of these were to the interior.

Micron's capabilities on smaller scales it would give a better idea of its advantages over other airbrushes. I used my Iwata 'Smart Jet' compressor that I've been using for about five years now, which continues to perform extremely well with the bonus of being very quiet indeed.

As an added part of the test The Airbrush Company also asked me if I would like to try the Lifecolor range of acrylic model paints from Italy. These colours are matched to the full sized originals such as Federal Standard Colours and the German RAL codes, etc., and need to be thinned for airbrush use. There are four boxed sets of colours, each containing four 22ml pots; the sets are NATO MERDC (Mobility Equipment Research & Design Comma), German WW2 Tanks Set No.1, and two sets of Tensocrom (active surface agents) that are designed for weathering models. These weathering sets are designed to reproduce all of the usual wear and tear detailing usually required, as well as fuel and oil staining, and heat damage colours such as Smoke, Burnt Brown, and White Oxide which produce great effects for charred or burnt vehicles, etc. As well as the special sets there are 146 other colours listed on Lifecolor's colour chart, covering most colours required including uniforms.

The Models

As I am very keen on Tamiya's excellent range of 1:48 scale vehicles, I decided to build and paint their Type 166 Schwimmwagen, which would be good to demonstrate the three-colour German camouflage. The second



choice was a 1:72 scale Leopard 2A5 KWS by Revell, which would demonstrate the NATO colours and test spraying a three-colour scheme without masking. The final choice was a true test of the Micron's abilities, a 1:144 scale Bergtiger from Dragon, which required little assembly, but would benefit from a good paint job.

Tamiya Schwimmwagen

The Tamiya kit was largely built straight from the box, without any after market or photo-etch details added, but I did add a couple of small, but essential, scratch built details.

A dividing bulkhead under the dash was made from plastic card, as were side 'hull' strengthening panels, which run laterally inside the tub of the body. Some small, but vital, details were also added; these included two fuel tanks under the dash, two wind-screen clips made from brass shim, strengthening

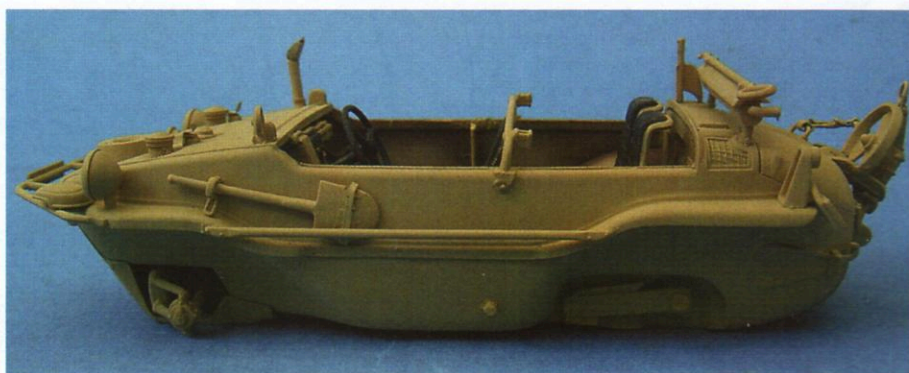
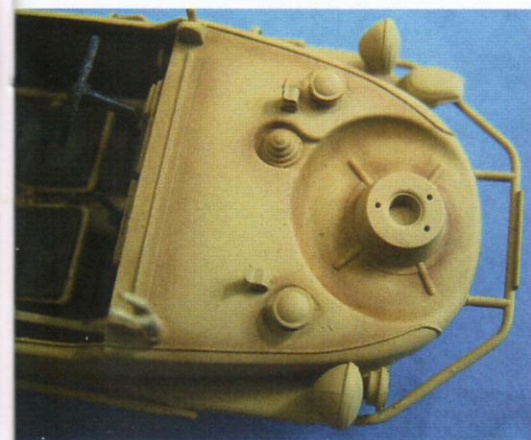
ribs for the rear tow hooks, two small tube jacking points either side of the hull, two boot lid clamps from bent wire, a retaining strap for the propeller assembly, as well as other small items.

The kit was built up without its wheels and seats and windscreen, which were the only parts that were easier to paint off the vehicle.

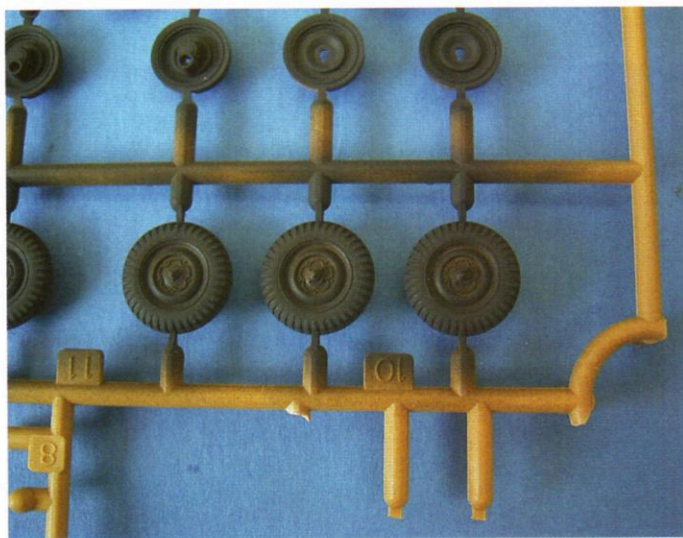
The whole body of the 'Schwimmer' was airbrushed with RAL 7028 Dunkelgelb (Dark Yellow), which was thinned with Lifecolor's thinner using a 60% thinner 40% paint mixture. Light coats were built up gradually until it was covered; the paint covered well and dried to a good matt finish that gave a good basis for the other colours.

Although its not something I would usually do, I airbrushed the wheels using Black LC02 with a little White LC01 added whilst they were still on the sprue, but as no flash or mould seams could be seen it seemed okay.

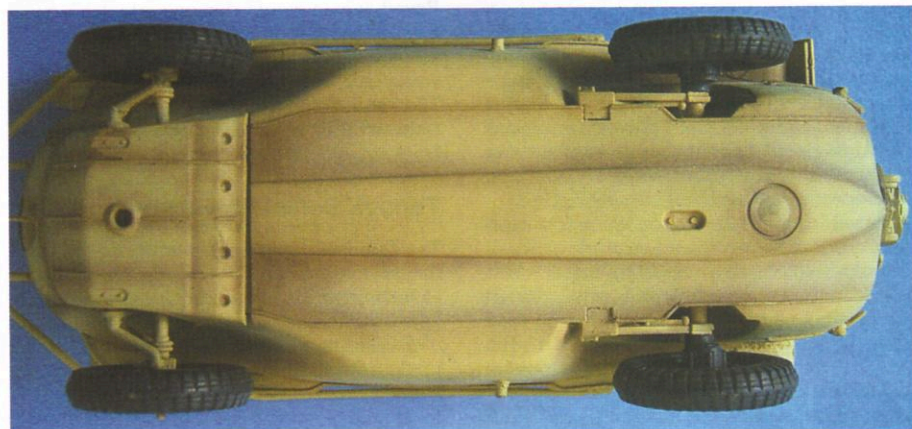
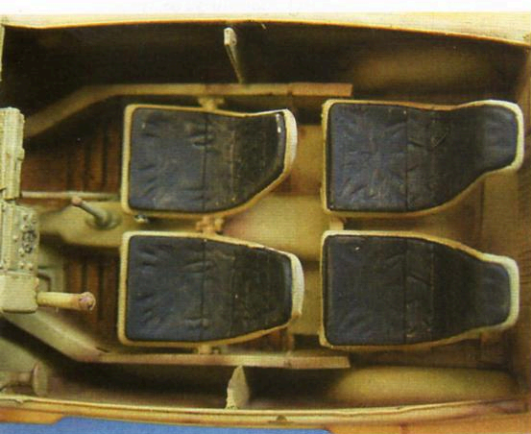
These were left to dry before using Royal



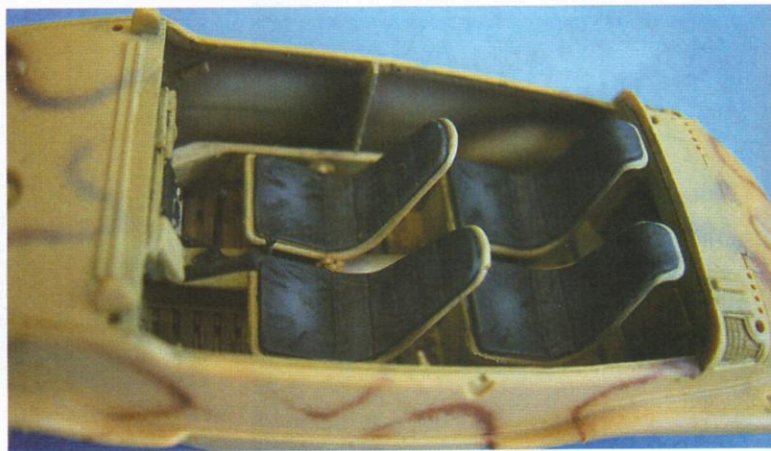
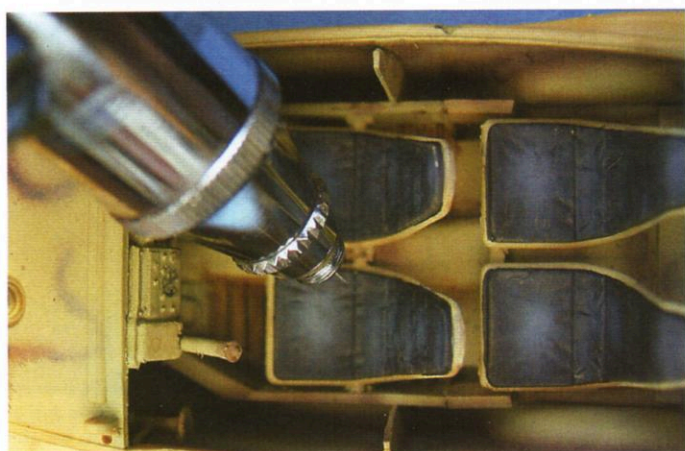
ABOVE: Overall sand was applied and then lightened - the seats were painted separately and then fitted. LEFT: The shading and highlighting work begins.



Wheels and tyres are easily airbrushed still on their sprues and the centres painted using a mask - this one is a template of circles available from Royal Models.



ABOVE: Shading and highlighting the schwimmtwagen bodywork. BELOW: Freehand airbrushing! Highlighting the seats and areas of the interior are possible with the fine control experienced with the Iwata.





Model's photo-etched wheel mask template to spray the wheel centres Dunkelgelb. This method is a pure joy to do, as a perfect result is easily possible and quick too, in fact my daughter Holley who is seven years old recently painted her own Schwimmwagen tyres using this method which amazed me. If only I'd had this tool when I was a junior!

The seats were hand painted using a dark grey mixture, and were then weathered/highlighted with a lighter grey shade, this was the first use of the Micron at close quarters. Each individual padded panel of the seats could and were highlighted with fine accuracy, the airbrush performed the required task with ease, and the flow of the paint could be controlled well, especially with the additional control set screw at the end of the handle of the airbrush. This is a great help at close distances from the model as it helps to prevent those sudden unexpected spurts of unwanted paint, and aids control to a new level of precision control. This screw also has 0-4 marked on it for additional reference for future use, which can help set it up for your optimal requirements without wasting valuable time setting it up every time you use it.

The moulded crease lines on the seats were lined-in using black paint on a brush to finish them, which gave a pleasing effect. The Dunkelgelb was shaded next, this was done with a mixture of the Dunkelgelb with a little RAL8017 Rot Braun (Red Brown) added. This was well thinned to avoid the fine needle and nozzle becoming clogged from the paint drying on the needle tip. This problem is inevitable with this type of quick drying medium, and can not be totally eliminated, but can be reduced with constant checks and carefully brushing the needle from time to

The 'schwimmer' in a simple scenic setting with photo backdrop.



time with clean thinners and spraying just air through the nozzle prior to spraying again.

The underside and recessed areas of the body-work/hull were shaded using the darkened shade of Dark Yellow without the need for masking at all and was easily completed. As I wanted to produce a typical three-colour paint job, I used the Red Brown, but used German Tank Green UA083 instead of the RAL 6003 Olivgrun as it didn't give the effect that I wanted and the other green just looked correct to my eyes. I actually repainted the whole scheme as it did not look balanced in

the use of the brown and the green and this is why the step-by-step pictures don't match the finished pictures, there was nothing wrong with the paint or the airbrush work, but was changed purely due to personal preference.

Small chips were painted randomly using Red Brown mixed with black using a 00 brush. These were then targeted with the airbrush loaded with a thinned orange mix to reproduce a rust effect. As with most vehicles, once the airbrush work was completed the finer details and tools, etc., were brush-painted.

Revell's Leopard without Spots

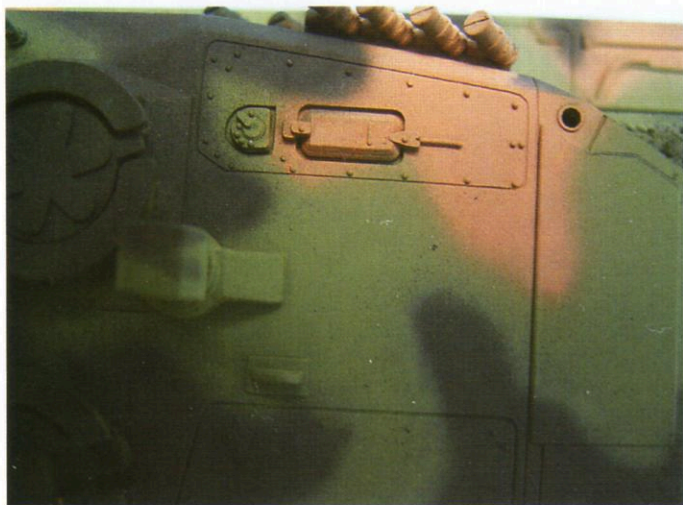
It was fortunate for me that I had several 1:72 scale AFV kits and that one of them, the German Leopard 2A5 KWS was a perfect candidate for a typical NATO three-colour paint scheme courtesy of Lifecolor's set of paints. The kit was built straight from the box including the link and length tracks, so that the paint job would be the 'make or break' of the finished model.

The base colour used was FS34094 Green, which was greatly thinned and sprayed over the entire tank at approximately 28psi from about three inches away to get good coverage, again a good matt finish resulted.

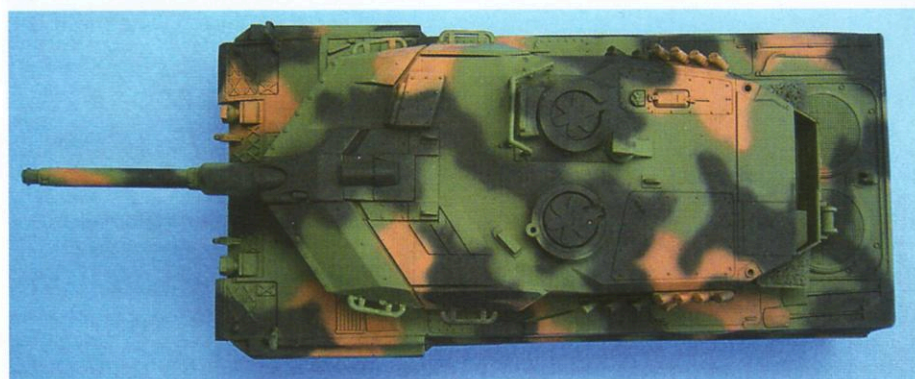
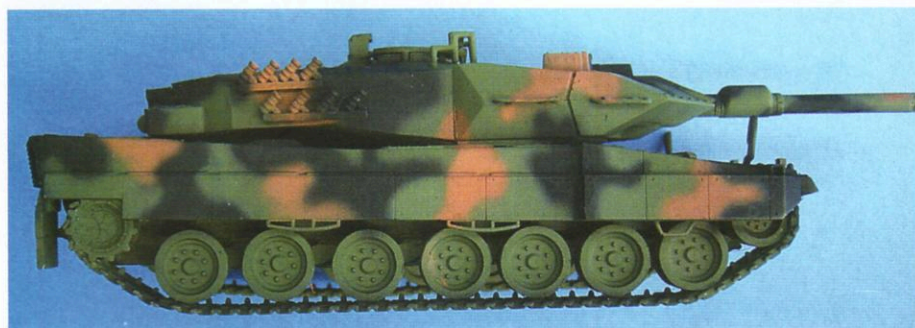
The next stage was a real challenge for both the airbrush and me, to paint the other two colours without the need for masking. The second colour from the set was FS30051 Brown which was again thinned, but was sprayed at much closer quarters (approx 2cm), to gain best results and to see the nee-



The finished Tamiya 1:48 scale schwimmwagen.



The base colour was FS34094 Green, which was greatly thinned and sprayed over the entire tank at approximately 28psi from about three inches away. Thinned Brown and Black were sprayed freehand with no masking from much closer quarters (approx 2cm), to gain best results and to see the needle's tip in relation to the tank. It is possible to remove the crown cap from the nozzle to get good coverage and a good matt finish.



Revell's 1:72 scale German Leopard 2A5 KWS in three-tone NATO camouflage of FS34094 Green, FS30051 Brown and FS37030 Black from the Lifecolor paint range.



The finished model with aerials added - its camouflage scheme airbrushed completely freehand.

dle's tip in relation to the tank, it was possible to remove the crown cap from the nozzle. This makes the instrument very versatile and much easier to aim or direct, but extra attention was paid to avoid bending the now vulnerable needle. The Micron amazed me with its smooth delivery of paint and the job was a joy to do, without any major mistakes.

Black FS37030 was used to complete the three-colour schemes and even with a strong opaque colour such as black there was little or no 'freckling' of black on the adjacent colours as one would often expect without masking areas and a sharp yet soft scale edge was possible. When completed, it seemed a shame to weather and finish the Leopard as it looked really good in its near perfect factory fresh paint job. All the same, I hand-painted the remaining details such as the tyres, tracks, and tools, etc. The Earth and Sand colours from the Tensocrom set were used to dirty the side mudguards and the underside of the tank, even this could be controlled and directed to exactly where I wanted it to go, but I need to practice using these 'active surface agents' as there are many more techniques which are possible.

The Smallest Tank, The Biggest Test - Dragon's 1:144 scale Tiger

I have painted 1:144 scale vehicles with the Iwata Eclipse on several occasions and have enjoyed doing this very much, as the results happen quite quickly and they come to life with a little extra care, resulting in pleasing little miniatures. The Bergtiger is an interesting looking AFV, which is full of character, and in this 'sub-Braille scale' it is a fun item to paint as well as challenging.

The whole thing was airbrushed in a mixture of the RAL8017 Red Brown and Dunkelgelb to pre-shade the Dunkelgelb. The main features, such as hatches, wheel rims and various panels were then targeted using the Micron without its crown cap in place with Dunkelgelb thinned, but not darkened. The German Green UA083 was chosen for the secondary camouflage colour and this was painted on using flowing lines across the hull and turret. To finish, details were brush painted and highlights to exaggerate moulded details were applied using lightened Dunkelgelb.

Decals were added to complete the Berg tiger, it's just a shame that it has no zimmerit but that's a pretty tall order in this scale!



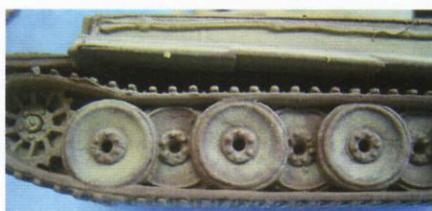
Revell's 1:72 scale 'Leopard without spots' looks good in a scenic setting.



ABOVE: The Bergetiger in a scenic setting with only its crane hook and pulley defying gravity to give the game away.



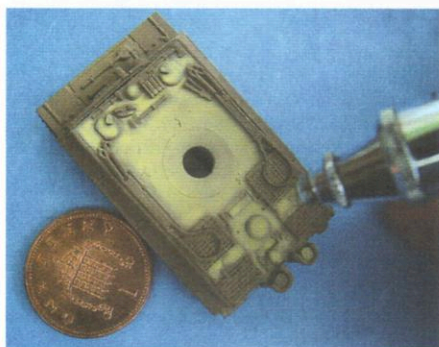
Dragon Models' 1:144 scale Bergetiger doesn't need much paint! First and priming coat has been applied.



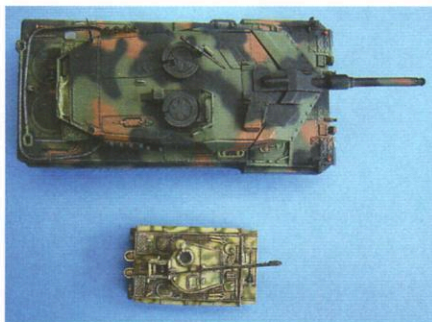
Detail on this Dragon kit is remarkable requiring fine freehand spray work from the Iwata.



Green stripes applied freehand without any masking.



The penny piece alongside gives a good idea of the minute size of the 1:144 scale model Tiger, as does the Iwata's nozzle.



Comparison of cats - the 1:72 scale Leopard compared to the 1:144 scale Tiger.



Base coat applied the 1:144 scale Bergetiger awaits its camouflage scheme.

Summary

After 26 years of airbrushing, I am still learning, but this is partly what appeals to me about both the hobby of modelling and painting. Some hobbies end when a standard is reached or a prize is won, but the possibilities of new techniques, materials, and tools makes life very interesting.

The Iwata Custom Micron has shown me yet again that I can expect more from Airbrushing, and that more precise work than previously can be achieved. This fine piece of equipment has raised the bar as far as creative airbrushing is concerned and modellers should perhaps look beyond just using the airbrush as a convenient way of applying block colours and mud effects especially in smaller scales.

The Custom Micron that I used was the 'B' model, which has top mounted 1.8ml. Gravity feed cup which carries enough paint to do most fine work, but for quick colour changes and the choice of left or right mounted feed cups the 'SB' model is a good alternative, this allows more flexibility when airbrushing close to awkward items or in areas where space dictates the airbrush's use. According to Iwata's Catalogue, the Micron's crown cap and nozzle cap can also be removed to create a range of stipple or spatter effects, which would be useful for stone surfaces, etc., on groundwork.

My initial impressions of using Lifecolor paint is that once thinned with either water or thinner, they give a good opaque coverage, and dry to a consistently matt finish unless their satin or gloss varnish is used. There is a good range of colours available as well as two, well thought-out weathering sets. The RAL

and Federal Standard colours, etc., are a useful arsenal for the AFV modeller.

I hope to try the Micron on a figure in the near future, as this is another area in which I think it will excel, as shading creases in clothing etc. could be done subtly, and maybe even the face could benefit from shading and highlighting.

I would like to thank Ken and Alex at the Airbrush Company Ltd., for their help and support and for supplying both the airbrush and the Lifecolor paints, both of which are superb and available from The Airbrush Company Ltd., Marlborough Road, Lancing Business Park, Lancing, Sussex BN15 8UF, Tel. 08700 660445 www.airbrushes.com sales@airbrushes.com



In the first of a two-part feature on Italy's Autoblinda 41 armoured car Jay Lavery builds Italeri's 1:35 scale kit

Autoblinda Importante

Granted, it wasn't a subject the modelling world eagerly anticipated nor was the reception overwhelming, but there is definitely a welcome place for this model here. The response to the kit was generally fairly positive and the significant role the AB 41 played in the Italian armed forces during World War Two means this model will find its way into a lot of modellers' collections, and deservedly so.

As with most nations who unexpectedly found themselves on the brink of war in the late 1930s, Italy was seriously unprepared in a lot of aspects of the military, and the situation with respect to armoured cars was not ideal. Equipped with largely obsolete vehicles, Spa and Ansaldo were commissioned to come up with a design to replace the ageing Lancia I.Z and the antiquated Fiat 611. By March 1941 the two competing designs were merged into one, taking the best points of the two, and thus the AB 40 was born. Employing several innovative features into its design, the Italian Army and colonial Police now had a vehicle that was a match for any foreign vehicle.

With two driving positions, an independent suspension and spare wheels mounted as neutral in order to aid the clearance of obstacles, the AB 40 looked promising. Originally designed to mount twin machine guns in the turret and one hull mounted rear facing machine gun, the design was considered too lightly armed and the decision was subsequently made to mount the Breda 20mm cannon.

Anyway, that's enough from me on history and statistics and Daniele Guglielmi will present a more detailed history on this interesting armoured car in next month's issue.

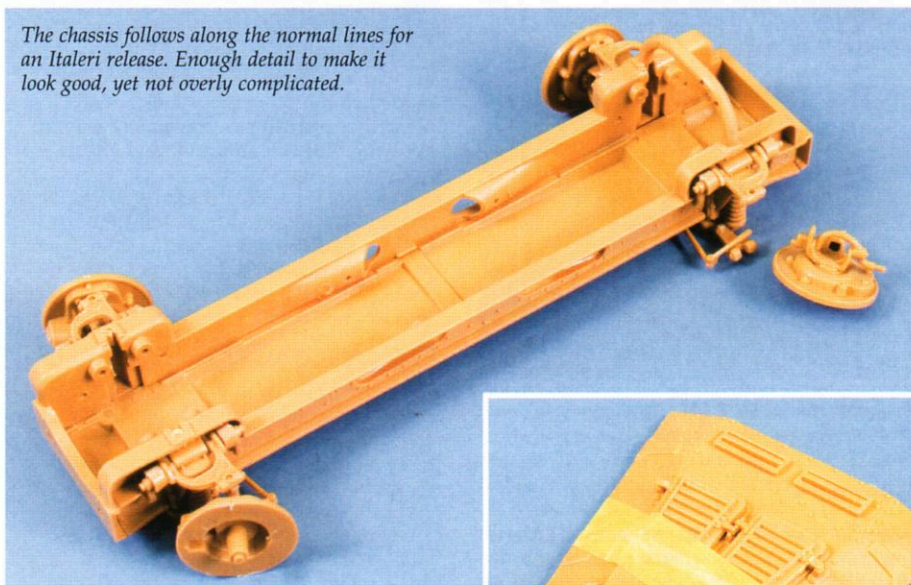
Italeri's Kit

Early reports are good. Relatively free from flash, the mouldings are crisp and detailed. One of the things that makes an armoured car kit stand out are the bountiful rivets adorning the frame, and this kit has them in abundance and in the right places as well.

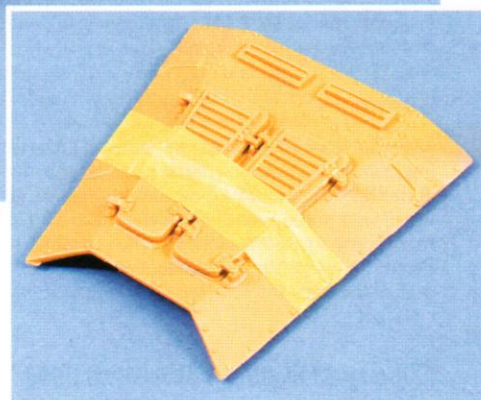
Spread over a mere four sprues of tan plastic, it is quickly apparent that this will not be a tiresomely long build; on the contrary was a pleasant diversion. Having been a fan of Italeri all of my life, this kit would need to be pretty bad to fall below my expectations. However, in the first few glances it exceeds them. The tyres are excellently done and really capture the feel of the real thing. Older Italeri kits are let down by this and despite the general quality of the kit, have always proven to be the give-away of the fact it was a plastic model kit, no matter how much effort was put into the construction and weathering of the kit. If you don't believe me, have a look at the Opel Blitz. Superb kit, and no matter how well you do it the tyres still look like they came from a toy.

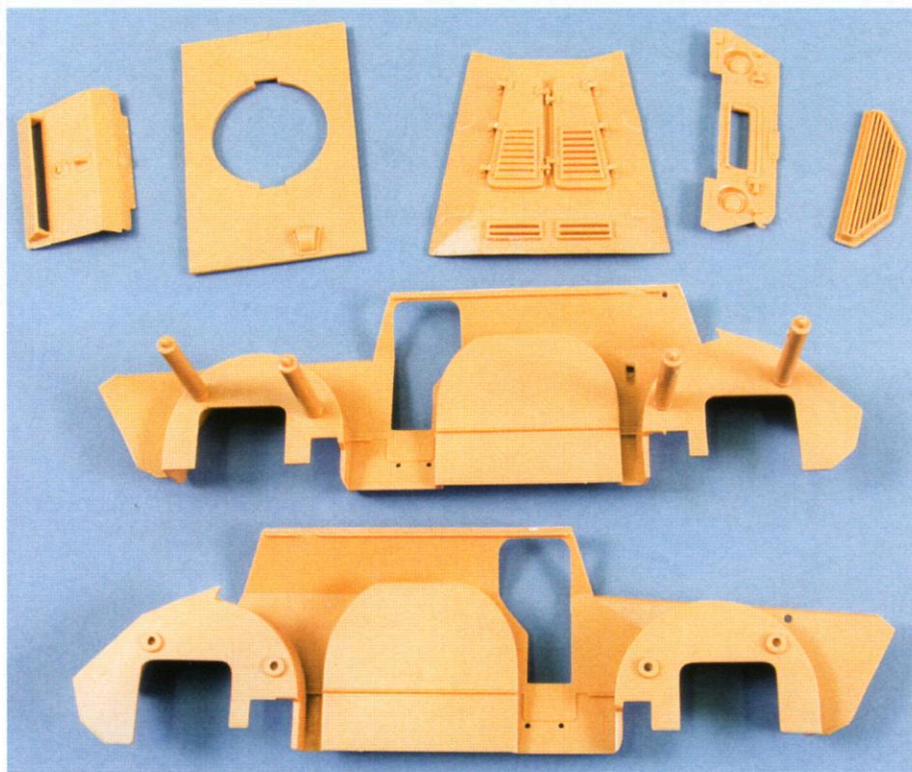
The realization of the various details in the kit range from great to distinctly average. The armament receives a good treatment and because of this opening the turret hatches without any serious detailing or the addition of a figure is an option. The 20 mm Breda has the optical sighting device depicted rather well, as is the coaxial machine gun. Unfortunately there is absolutely no detail included in the main

The chassis follows along the normal lines for an Italeri release. Enough detail to make it look good, yet not overly complicated.



RIGHT: While proving to be a somewhat tricky fit, the simple solution to the engine deck was to tape down the hatches until the cement had sufficient time to dry.

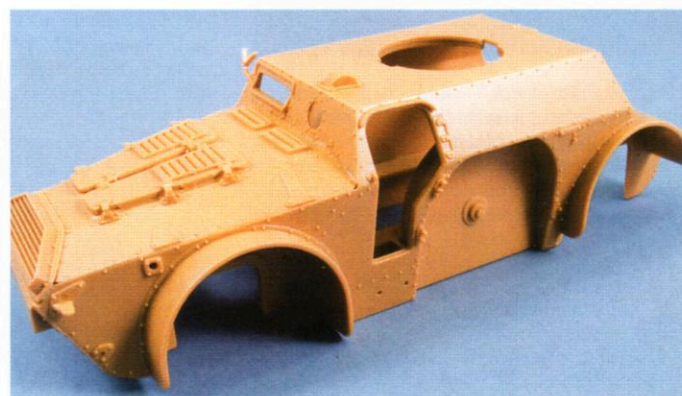
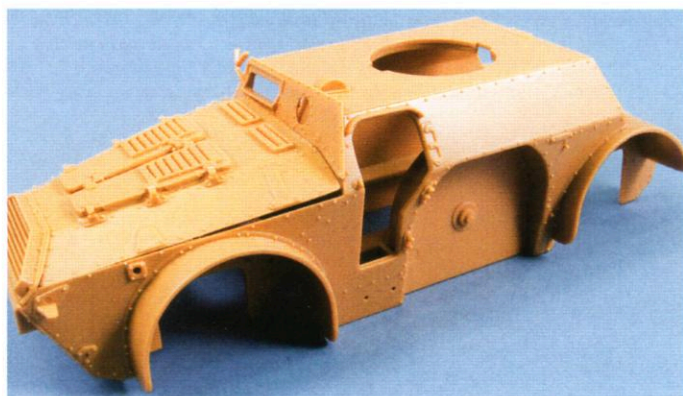
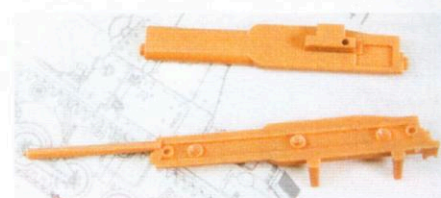




It wasn't long before the basic sub assembly was completed with the body, and this was proving to be quite a satisfying build at this point.



I decided to use the Jordi Rubio replacement barrel for the 20mm Breda gun and was pleased to find that it was a simple replacement operation.



ABOVE LEFT: There was a problematic fit with the rear of the main body of the vehicle and this took a little ingenuity to deal with properly. ABOVE RIGHT: By creating a tight join along the length of the seam, the lip along the vertical plate was 'tucked' under the edge of the engine deck, in all taking five minutes.

compartment so opening the side doors without adding a lot of scratch built interior detail is a decidedly dicey manoeuvre.

Possibly the greatest disappointment and letdown of the kit in these early examinations are the headlights. How hard would it have been to add some clear parts? Solidly moulded into place one the front and two parts on the rear, they are moulded with the rest of the kit, it would have been so much more appreciated if they were included in one simple, small fret of clear plastic. I think that in this day and age even introductory modellers of whatever age would much prefer clear parts to represent clear parts!

The pioneer tools are fairly average, although they aren't all that bad and can definitely be used. This is where after-market photo etched, or some industrious scratch building will come in handy. The tool clamps are moulded on due to the limitations of the injection moulding process.

The markings provided are excellent, and offer a wide variety of five colourful choices, covering vehicles in German service as well as

the obvious Italian units. The painting and decal instructions are printed in colour, which makes for some very pretty schemes to look at when you are pressed to decide which option to construct from the kit. Interestingly though, not one of the schemes is for a vehicle that saw action in Africa, which personally, is a 'bitter weathering disappointment'.

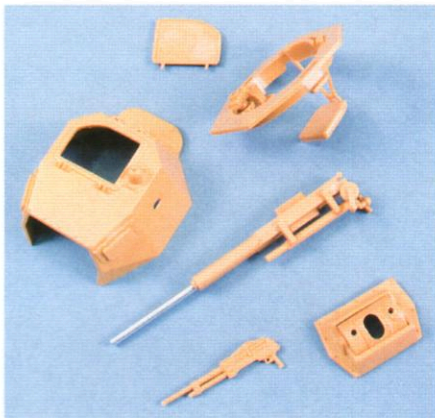
I think overall, the general impression is a good one, minor grievances aside, and I was looking forward to building the model.

Getting Underway

It may be fiddly and fragile, but the chassis is nicely detailed and builds up the way I remember all Italeri kits do. Someone at Italeri loves trucks and vehicles and they always seem to get a particularly good treatment of the moving parts of the chassis. The frame is assembled from five major components and care must be taken to ensure that all are properly aligned before the glue is dry. There are a couple of U-shaped struts to assist this, but time and patience are also required.

Articulating joints (although the drive shafts will limit their flexibility unfortunately) mean that the wheels can be positioned within reason to give the impression of action. They are relatively complicated to assemble, although far from difficult, which is why I would recommend doing as much as possible before actually applying cement. One of the definite design considerations shows itself here, as the wheels are not to be added to the brake disks yet, obviously in consideration of painting the hubs. A precautionary test fit, indeed, shows that the wheels and hubs can easily be added to the discs after the painting and assembly are complete without any damage. Nice one Italeri!

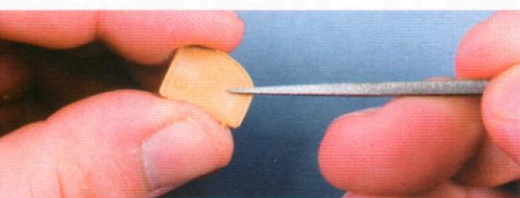
Attaching the drive shafts is slightly tricky and requires some gentle coaxing and bending, but the plastic is sufficiently soft that this will cause no breakage unless you are one particularly careless and heavy-handed modeller. Occasionally a trait I can attest to, but fortunately on this occasion I have avoided this trap.



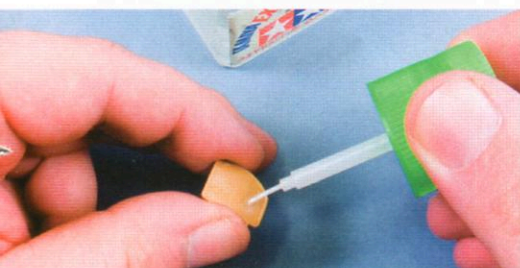
LEFT: All of the turret components laid out immediately prior to their painting shows once again the Italeri approach of enough detail to look good, yet not overly complicate matters. RIGHT: Getting onto the priming. All of the smaller parts were done at once, including the pioneer tools and the Tamiya wheel has to be one of my favourite and most useful painting aids, as I can easily get around all of the sides of the various parts with little stretching and moving. Spin and spray basically, like some kind of magic roundabout.



To fit the Jordi Rubio barrel, the crescent opening for the kit part was widened to a round shape and the barrel simply inserted there with no further modification necessary.



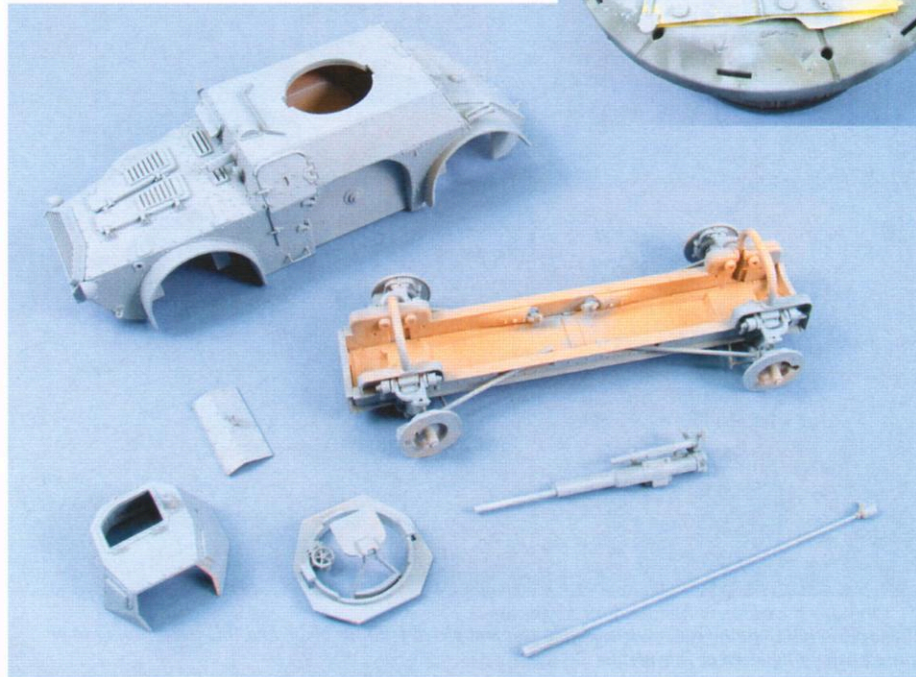
The commander's hatch had two very prominent and nasty ejector pin marks that needed removing, so they were carefully filed down so as to avoid obliterating the fine detail that surrounded them.



I tried to use Tamiya glue to eliminate the rough texture the file left behind, but was unsuccessful. In the end it was up to a nail buffer to remedy the situation.



As the wooden part of the tools requires a few days of painting with oils I like to get most of it done first and leave it to dry while I work on painting the rest of the model with enamels.

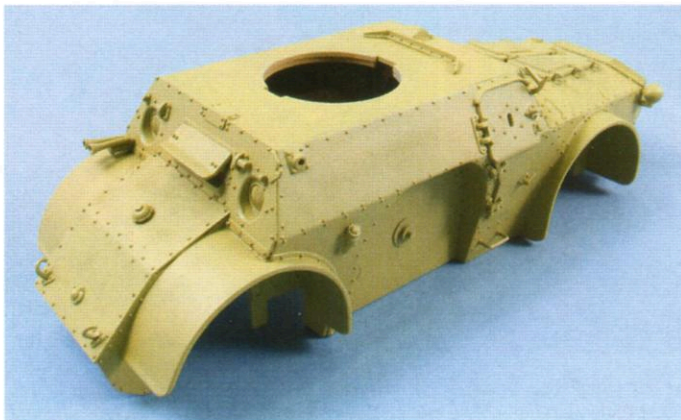


ABOVE: With the rest of the components in primer, there is very little left to do aside from trying to match the Italian scheme. BELOW LEFT: The turret interior is an obvious choice to start with as it can sit safely indoors while the exterior receives its paint. BELOW RIGHT: Tools and guns that need a metallic finish. I start with matt black (normally Humbrol) and then dry-brush gunmetal lightly over that until it looks about right.

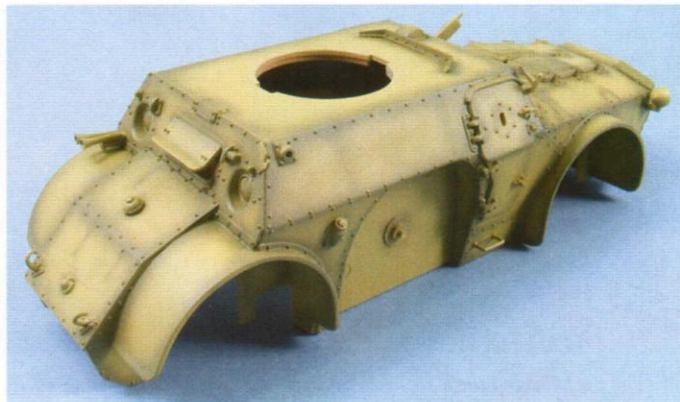


The major job! There was some close scrutiny of colours done in order to find what I thought would best represent the contemporary Italian scheme, and Xtracolor 805 Dunkelgelb and Humbrol Natural Wood 110 were to be the catalyst for this. The black and white will become part of the shading sequence.





First, on goes the base colour, a mixture of Humbrol Natural Wood 110 and Xtracolor 805.



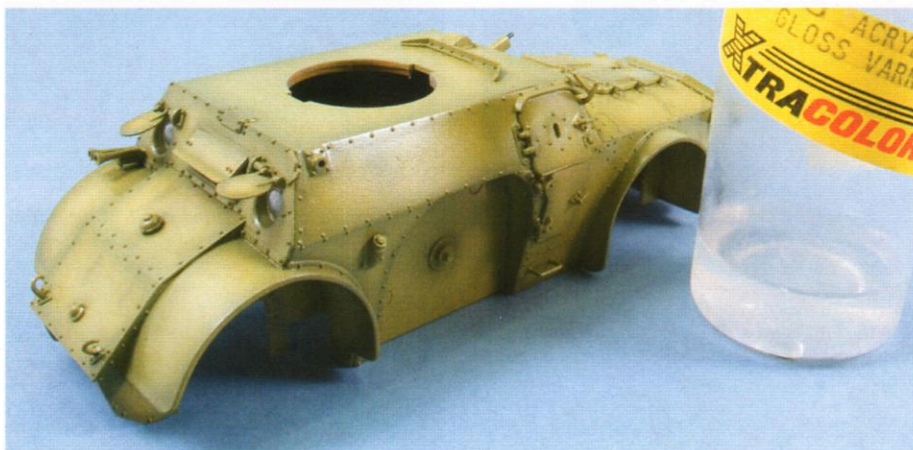
This is immediately followed with the base colour mixed with matt black to form what I aptly call the 'low lights'. The key is to get this one before the base coat dries as this greatly assists the blending of the colours.



Next is the equally ingeniously named 'highlights' which sees the base colour mixed with matt white, again before the base has dried. The key is to work as fast as possible without becoming sloppy.



As you can see in the previous pictures I tend to exaggerate the effects of the highlights and lowlights, both of which are blended with a very thin re-application of the base colours, which also serves to restore the tint of the original colour.



Time for the gloss varnish! I use Xtracolor for this, as it is essentially Future acrylic floor polish for those who do not have it readily available. A good, even coverage is essential and time must be taken to ensure there is no excessive build up.

On Top of Things

As I mentioned earlier, there are loads of rivets all over this model. A very nice feature, but it means that I was quietly praying that it would fit. Having to do some sanding would mean replacing the obliterated rivets, and that would mean that the new ones would not match the old ones, and that would mean replacing all of the rivets, and that would more than likely cost me my sanity as the original plan was a 'pleasant diversion' from the standard practice!

Occasionally I got the impression that it was being belligerent, and simply didn't want to go together, but in the end it did. Occasionally parts had to be coaxied into place, particularly with the rear panels, but I will stop shy of calling this a fault in the kit, as it would be very easy to misalign a part ever so

slightly, which would have the knock-on effect of throwing out the perfect engineering of the other joining parts. Making a small fixative error is far more likely the culprit, as even to my untrained eye the excellent potential fit of the parts is obvious. Once the hull was together the basic construction was complete, and all that stood between my airbrush and me at this point, was the turret.

The turret is a fine bit of work, and comprises just enough detail to warrant opening the roof hatch to display the nicely-detailed gun and even a representation of the turret traverse mechanism. Before assembling the turret, all of the interior components were painted their appropriate colours and given the opportunity to dry.

With the model ready to paint it had been a thankfully quick build and, all considered, pleasing and very rewarding.

Putting its Coat on

After the entire model was given a good coat of Alclad Grey Microprimer, I chose a scheme to adorn the model. There are plenty to choose from in the instructions, and while I like the look of the camouflaged Italian and German vehicles, I chose the solid coloured 'GNR' vehicle as I had been experimenting with shading, and this solid colour would give me an ideal opportunity to continue with these techniques. However, matching the colour is another story altogether.

The instruction sheet does not help things along at all as the colours they quote bear no resemblance to the colours they show on the instructions, and a troll though a couple of references shows that the 'Italian Sand' was a colour that appears to have varied. I chose to mix something myself, based on Xtracolor's Panzer Dunkelgelb mixed with some Humbrol Natural Wood 110 to lighten it and add a tinge of beige to the overall appearance, and what to my eye looked closer to the colour I wanted.

With the base coat on, some black was quickly mixed into the remnants in the Aztek's cup and a small amount of thinner added to this mixture. This was sprayed around the edges of the vehicle, across the rivets and into the recesses, creating what I call 'low lights'. White replaced the black for the next step as the cup was cleaned out and I began from scratch with the mixture. It is important to make sure that the highlights' mixture is thinner than the base coat was when it was sprayed, as this will greatly assist the blending. Keeping the highlights' mixture to the central areas of the various angles on the models was how the 'bleached out' effect was created. With the highlights on, the model was left to dry for a few hours, then coated in Future Acrylic floor varnish, a very easily sprayed gloss coat, that is extremely durable, and completely impervious to the rigors of washing in oils.



This and the following shots are what will hopefully prove to be a simple to follow, step-by-step guide to my method of washing using artists' oils. I prefer Winsor & Newton's 'Gryffin Alkid' paints as they are faster drying than conventional oils, and when mixed with white spirits, are essentially dry to workable in a few hours. First up is a dab of Payne's Grey.



Staring into the abyss. Hopefully the lack of density of the mixture is visible in this photo.



And they're off! With all of the rivets on this model, I was quite looking forward to the wash, and armed with my trusty 0000 brush I'm finally underway here.

Wash n' go

Winsor & Newton's Raw Umber and Payne's Grey are the two most utilised oil colours in my collection and the two provide about 80% of the weathering on my models. Firstly the two oil colours are mixed together - 80% Raw Umber + 20% Payne's Grey. Next 65% thinner is mixed to 35% of the Raw Umber/Payne's Grey mix.

The wash is applied as locally as possible with a fine brush (generally 000 or more) with the excess being removed after at least four or five hours drying time with a cotton bud, keeping the tube of Payne's Grey close to hand for the next step is also a good idea.

Using as small a brush as possible the paint chipping was added to the model, trying to keep the areas covered to places that would see a lot of crew traffic or flying debris. The beauty of doing this on a solid, glossed surface is that any mistakes can easily be removed, and re-done.

Before applying the matt varnish to seal off all the weathering effects, the tyres were added after receiving liberal lashings of



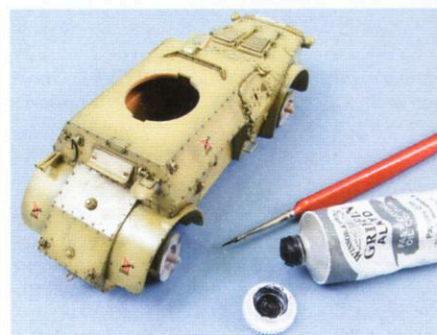
This is followed with a larger portion of Raw Umber (approximate ratios are provided in the text) and I use a mid-sized flat brush for mixing, as this would ruin a fine brush.



Mixing it thoroughly is also important as there is nothing worse than starting out with what looks to be a perfect mixture, then pulling out a thick lump and dumping it somewhere awkward on the model to remove. Not that it has ever happened to me...



This shows the effect of the wash as by comparing it to the unwashed rivets it is clearly visible how prominent they become when surrounded by the artists' oils.



While the Raw Umber can contentedly be retired to the 'weathering box' satisfied as a job well done, there is much left for my 0000 brush and the tireless tube of Payne's Grey, as the paint chipping is now ready to be applied.

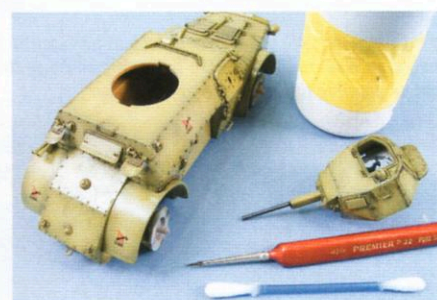
CMK's Stardust weathering pigments. Applied with an old brush, the powder was worked into the grooves on the tyres and then removed with a finger. Once these had been positioned and glued into place, the matt varnish was applied.



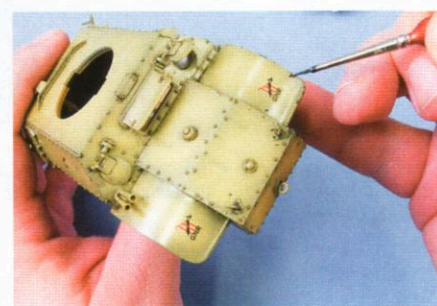
A large amount of thinner is added to the mixture and the amount is essential to how easy the mixture will be to work with. Too much and it will not settle into the recesses and lines, too little and it will require several laborious passes to accomplish the effect.



The reason I like to use a 'spray away' lid for a mixing cup is that I can test the density of the mixture on the threading at the top.



The final piece of the washing puzzle is the cotton bud. The turret still shows the excess ready to be removed, and the results of gently 'polishing' away the excess can be seen on the hull.

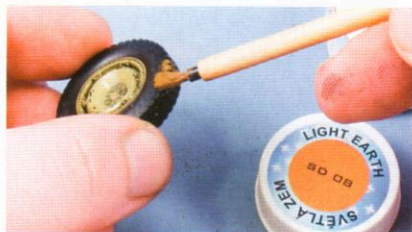


Convincing chips are not at all easy to do, and this is why they are placed on the gloss surface before matt varnish is applied. Any mistakes can easily be removed with a cotton bud.

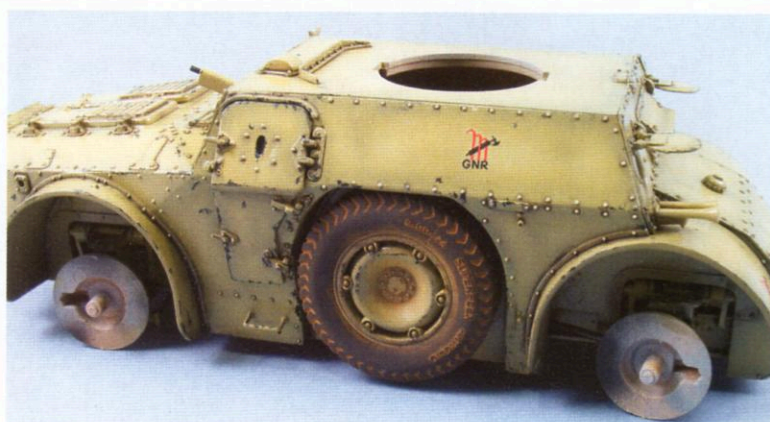
The Verdict

Belissimo! It is really refreshing to see companies like Italeri venturing into the subjects hitherto untouched, although I imagine it's because the rest has been done and Italeri are cleverly filling an unexploited niche in the market place. While I was disappointed with the lack of any African theatre schemes on the decals the variety of choices is quite good.

The model builds really well and, as is typical with Italeri, enough attention has been



Enter Sandman. CMK's Stardust pigments are an integral part of my weathering process, and the first to get the treatment were the tyres. With all of the lovely detail provided in the Italeri renditions, I was anxious to pick it all out with some light earth. This sequence for weathering the tyres will hopefully show just how simple making the powders look effective is. After covering all surfaces of the tyres, the excess was removed with a finger.



Ready for Matt varnish, the effects of the chipping and wash are clearly visible in this photograph. A fair bit of the weathering process has been completed at this point, but we are only about halfway.



Last task now is the exhaust. After priming, it is sprayed with Alclad aluminium to give it a metallic base.



First up is some matt Wine to give the rust a dark base.



This is subsequently followed with orange to give it a contrast. To finish it off, Stardust 'black smut' (which is a bit of a risqué title) is brushed vigorously over that to reveal some of the metallic undercoat and give it overall depth and blend.

The neutrally mounted spare in place on the model shows off the effect of the Stardust pigments nicely.



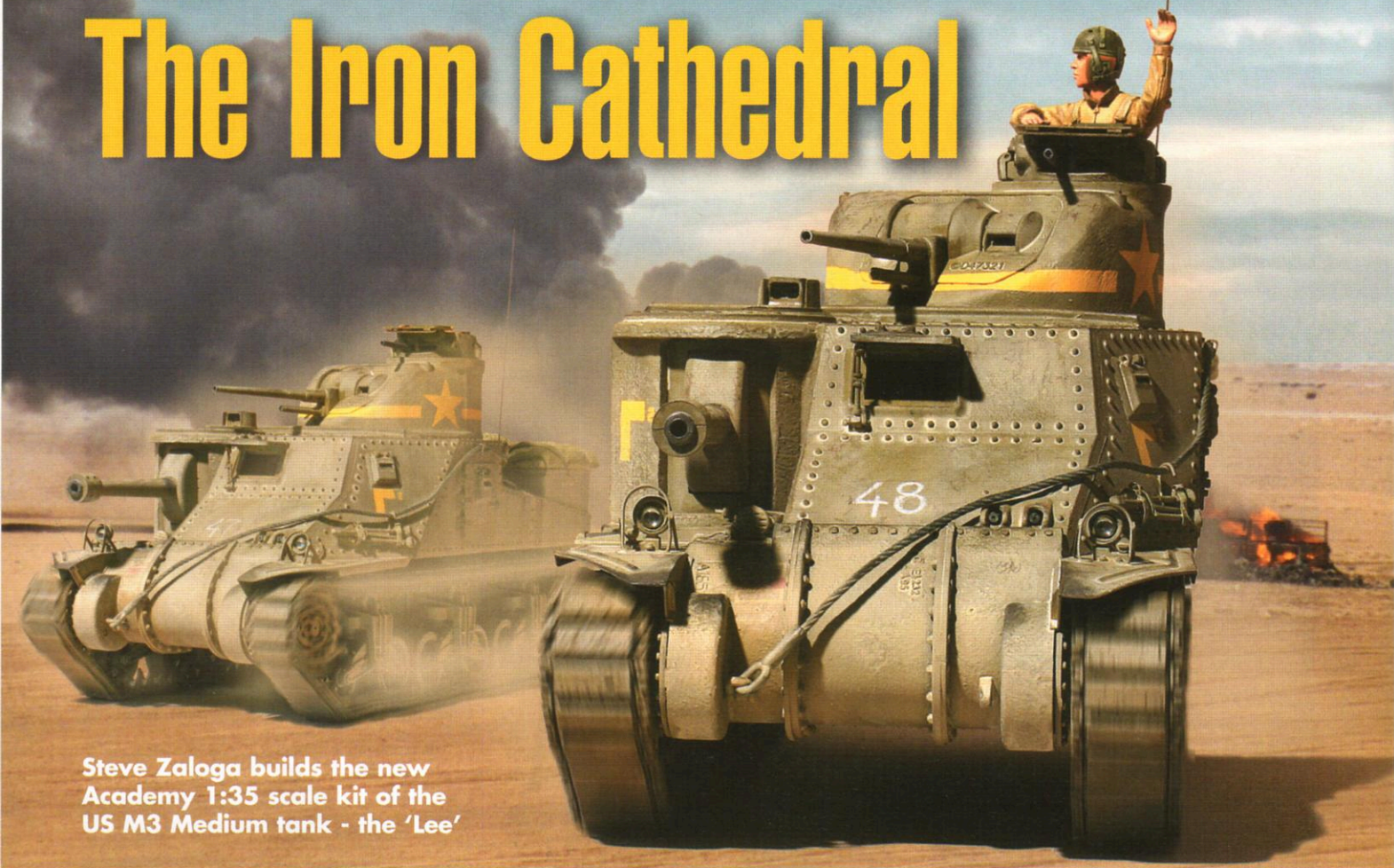
made to keeping the construction interesting, yet not too complicated and thus well within the reach of even younger modellers. The pictures of the completed model show it can be built into an acceptable piece straight from the box, but with the addition of some details, such as an interior, and perhaps the addition of some aftermarket parts (etched brass etc.), this could be made into a really stunning kit.

Availability

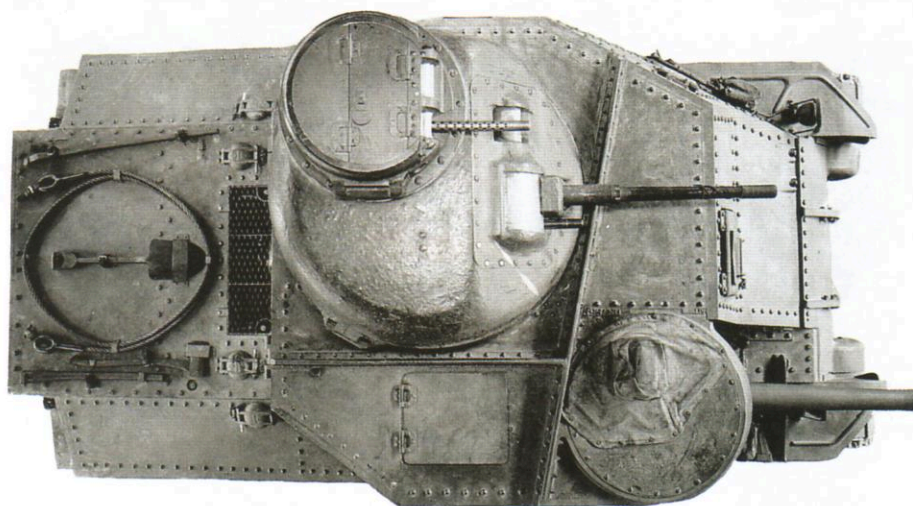
Italeri kits are available from most major model retailers and imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net enquiries@hobbyco.net ■

In next month's issue Daniele Guglielmi relates the history of the AB41 armoured car.

The Iron Cathedral



Steve Zaloga builds the new Academy 1:35 scale kit of the US M3 Medium tank - the 'Lee'



TOP: The model 'Photo-shopped' into a Tunisian action scene. ABOVE: Overhead view of the pilot M3 medium tank. The early production vehicles lacked the rear stowage bins.

Academy's new 1:35 scale M3 Lee medium tank had been long awaited by Allied tank fans. Tamiya's Lee/Grant kits are very old and never were among of their better efforts, suffering from awful turrets and poor detail. Academy is expected to release a Grant as well, and some other M3 variants.

Besides filling a gap for this important type, the Academy kit offers conversion potential for early Sherman variants as well as other M3 relatives such as the Canadian Ram. Sad to say, the kit's potential is somewhat spoiled by some awkward flaws in the suspension. In spite of these problems, it builds up into an attractive model and most modellers will probably find the accuracy problems to be too trivial to correct.

Crash Course in M3 Production

The history of the M3 Lee and its British production version, the Grant, has been told in detail many times elsewhere. Here, I am going to deal with some of the more obscure production issues that explain some of the modelling issues with this kit.

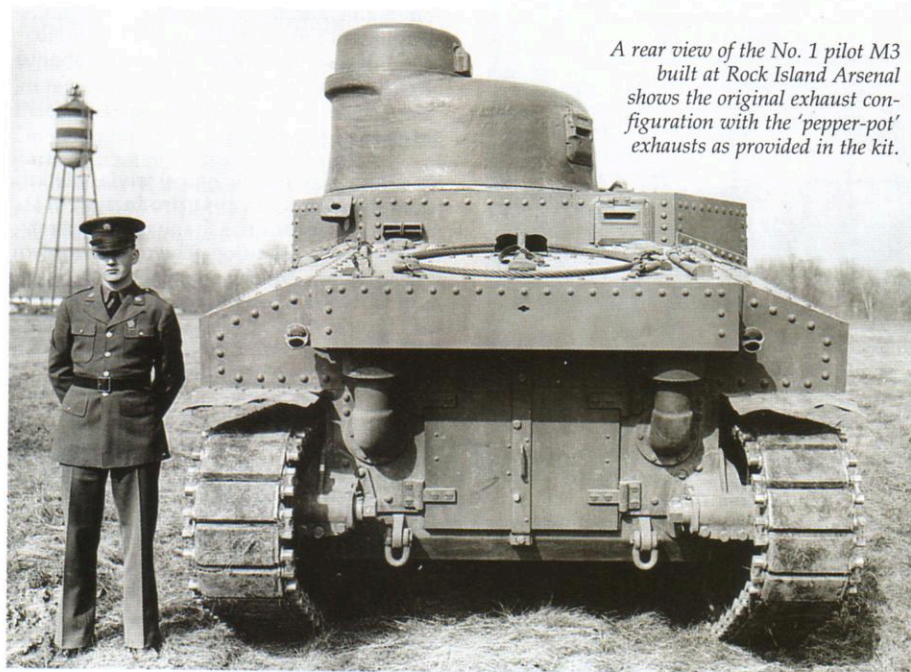
The M3 was the first medium tank put into serial production in the United States and ultimately some five plants were involved in its manufacture. Of the five plants, three of them, Pressed Steel Car, Pullman, and Baldwin, built most of their M3 tanks in the Grant configuration for Britain. As a result, most of the US Army M3 Lee tanks came from the Chrysler's Detroit Tank Arsenal, or

the American Locomotive (ALCO) plant in Schenectady, New York.

Four sub-contractors cast the turrets for M3 tanks. All 500 turrets cast by Union were for the Grant programme, as were about 1,100 from General Steel Casting. General was the largest single foundry used in the M3 programme with contracts for 3,712 turrets which were supplied to ALCO, Baldwin, and Pullman. The other key foundries were ASF and Continental for a combined total of 2,752 D-38530 (Lee) turrets, which all went to Chrysler.

This industrial trivia might seem irrelevant to modelling, but in fact it helps explain one of the odd features of the Academy kit. The kit turret has a very pronounced rectangular bulge on the left rear side of the turret below the commander's machine gun cupola. Some photos of M3 Lee tanks seem to show this feature while others do not. The reason for the discrepancy was the difference between the casting procedures at the different foundries. The turrets cast by ASF and Continental, which appeared on the Chrysler-built tanks, had a very subtle version of this bulge. The turrets cast by General which appeared on ALCO M3 tanks as well as other types such as the ALCO-built M3A1 and Baldwin M3A5, had a much more pronounced bulge.

The kit depiction of this feature is a problem for two reasons. The vast majority of M3 Lee tanks used by the US Army were built by Chrysler and had the ASF/Continental turrets with the more subtle bulge. Furthermore, the markings options provided in the kit are for Chrysler-built tanks. The second problem is that Academy misunderstood the shape of this bulge. The M3 D-38530 turret has its sides angled at 5° off vertical except for the area alongside the cupola, which is vertical. So this bulge should follow the round contours of the turret, and not be flat as depicted in the



A rear view of the No. 1 pilot M3 built at Rock Island Arsenal shows the original exhaust configuration with the 'pepper-pot' exhausts as provided in the kit.

Academy kit. To further complicate matters, this bulge was actually accompanied by another bulge over the trunnion area further forward on the left side of the turret, which is omitted on the kit. From a modelling perspective, this means that the bulge should be considerably reduced if depicting a typical US Army M3 Lee. If wishing to duplicate an ALCO M3 or one of the other production variants such as the M3A5, the bulge is a bit more prominent, but it still must be reshaped from flat to round. Hopefully the accompanying photos will make these points a bit clearer.

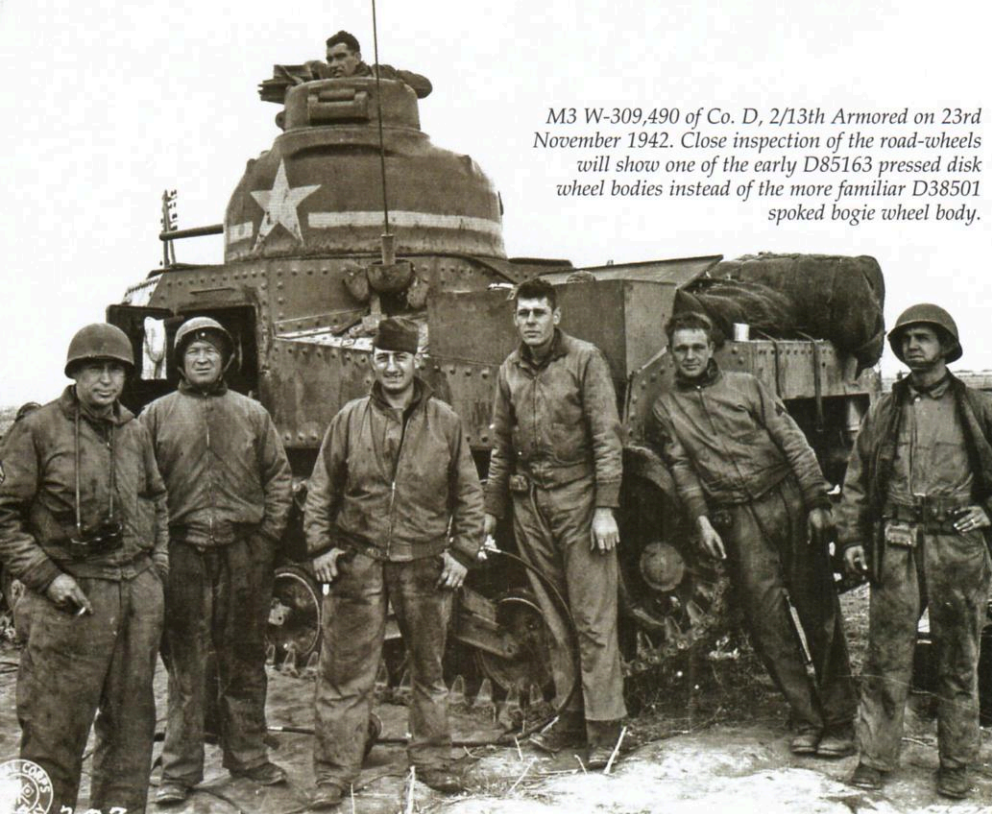
The second production issue raised by the kit is the configuration of the rear of the vehicle under the superstructure overhang. The kit accurately depicts the first arrangement of a pair of 'pepper-pot' exhausts nestling under the rear overhang. Visitors to the Tank Museum at Bovington will recognize this configuration as the Grant there is one of the few museum tanks still fitted with the original exhaust outlets. This early exhaust system caused problems as it overheated the engine deck plate above, posing a scalding hazard to the crew. So a 'quick-fix' was introduced in

ABOVE: The completed model in a scenic setting set against a photo-realistic backdrop.

BELOW: Close-up of the intermediate 'quick-fix' exhaust with the fish-tail stub exhaust coming out of the same circular port as the earlier exhaust, and the air cleaner moved to the outside of the hull. This example is on a preserved Grant tank in the Virginia Military Vehicle Museum collection that may be familiar to British enthusiasts as it was previously in the Budge collection.



late 1941-early 1942, doing away with the 'pepper-pot' exhaust mufflers and substituting simple fish-tail exhaust stubs which exited from the same circular plate. At the same time, the box air cleaners were moved to the outside rear corners, under the overhang.



M3 W-309,490 of Co. D, 2/13th Armored on 23rd November 1942. Close inspection of the road-wheels will show one of the early D85163 pressed disk wheel bodies instead of the more familiar D38501 spoked bogie wheel body.



ABOVE: Good view of D-11, registration number W-305,797 of Co. D, 67th Armored Regiment, 2nd Armored Division during the Carolina manoeuvres on 5th November 1941. The 2nd Armored Division used a national insignia the reverse of the more familiar Army Air Corps style with the roundel in red instead of blue. This was carried on the hull sides, turret rear, and glacis plate. The company letter/numbers are on the turret side. The registration numbers are probably in blue drab. This marking quickly disappeared after the Pearl Harbor attack due to the fear that the red circle could lead to misidentification. The crew wear early pattern tankers' helmets. (NARA) BELOW: Rear view of the M3 'pseudo-Grant' in the APG collection shows the final exhaust configuration with the exhaust stubs up under the centre of the rear overhang and the two air cleaners in either corner.



This remained the production configuration for most of the spring of 1942 and many M3 Lee tanks in the US Army were modified to this specification based on a maintenance work order (MWO).

In the late spring/early summer of 1942, the final design for the rear area was introduced, blanking over the round plates and ducting the exhaust along the centre of the engine deck roof with two exhausts pointing downwards from the overhang. This will be familiar to most Sherman buffs as it is the same configuration as the Tamiya M4 or DML M4A1. The Academy kit provides only the first exhaust configuration and this is fine, except that the decal options are for two US tanks in Tunisia, both of which are March-April 1942 Chrysler tanks with the intermediate 'quick-fix' exhaust configuration.

The third production issue was the armament of the M3 Lee. When it originally entered production, both the M2 75mm gun in the hull and the 37mm gun in the turret lacked stabilization systems. When stabilization was introduced later in 1941, it was accompanied by counter-weights to balance the guns. On the 75mm gun, this took the form of a prominent two-part casting bolted onto the barrel near the bore of the gun. On the 37mm gun, a tubular counter-weight was attached on the mantlet under the 37mm gun barrel. The kit lacks either counterweight. So unless modelling one of the early production M3 tanks, it's necessary to add these features.

The third and final armament configuration for the M3 Lee was the introduction of the longer M3 75mm gun in the March-April 1942 period. This longer gun did not need the counter-weight fitted to the M2 75mm gun, and the kit provides this gun barrel as an option. However, when fitted with this gun, the 37mm gun mount should have the counterweight!

Technical Trivia

To summarize this technical trivia, the kit accurately depicts a 1941 production M3 medium tank, but the shape of the turret casting needs attention. The main problem is that it does not represent the more common Chrysler March-April 1942 configuration typical of most US tanks in Tunisia in 1943, such as those represented in the kit decals. As a result, modellers will be obliged to either select another markings option such as a British M3 'desert tank' or one of the US Army tanks used in training in the US, or alternately upgrade the model to the later configuration suitable for a Tunisian campaign M3 tank. I decided to do mine in Tunisian markings.

The Lee in Combat

A few words are probably in order to provide a thumbnail portrait of the combat use of the M3 medium tank by the US Army. Aside from extensive use for training purposes in 1941-43, the US Army made very little combat use of the M3. When the US Army took part in Operation Torch and the subsequent campaign in Tunisia starting in November 1942, only one battalion, the 2/13th Armored Regiment of the 1st Armored Division was equipped with the M3 tank in this theatre. The remaining three medium tank regiments in the division converted to the M4/M4A1 Sherman tank before deploying to Tunisia. The 2/13th Armored saw extensive combat in the race for Tunis in

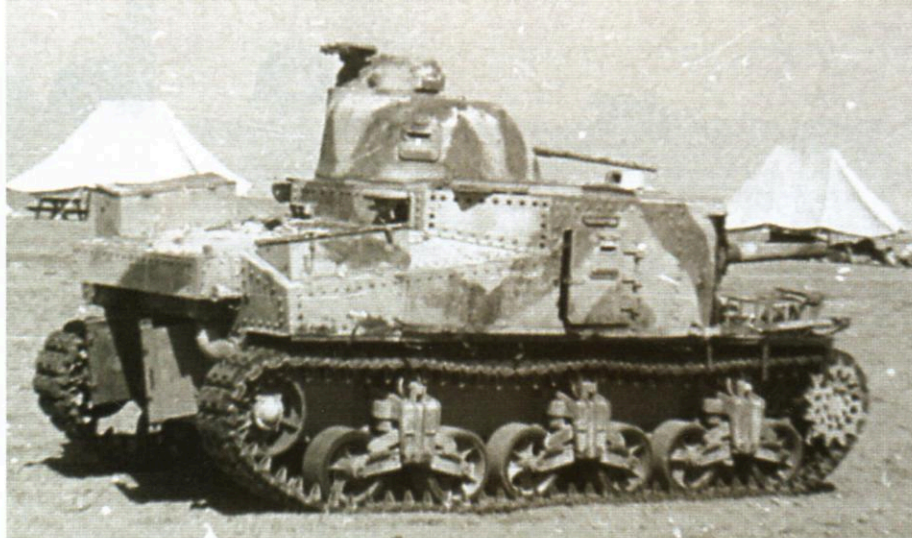
December 1942, losing most of its M3 medium tanks in the process.

By the time of the fighting around Kasserine Pass in February 1943, the 2/13th Armored had mostly been re-equipped with M4A1 tanks. The 2/13th Armored was the only US medium tank battalion with any combat experience at the time of the Kasserine Pass battles, and gave a good account of itself in the defence of Sbeitla and the later efforts to stop the German/Italian advance into Kasserine pass; it was the division's other inexperienced battalions which took such a licking.

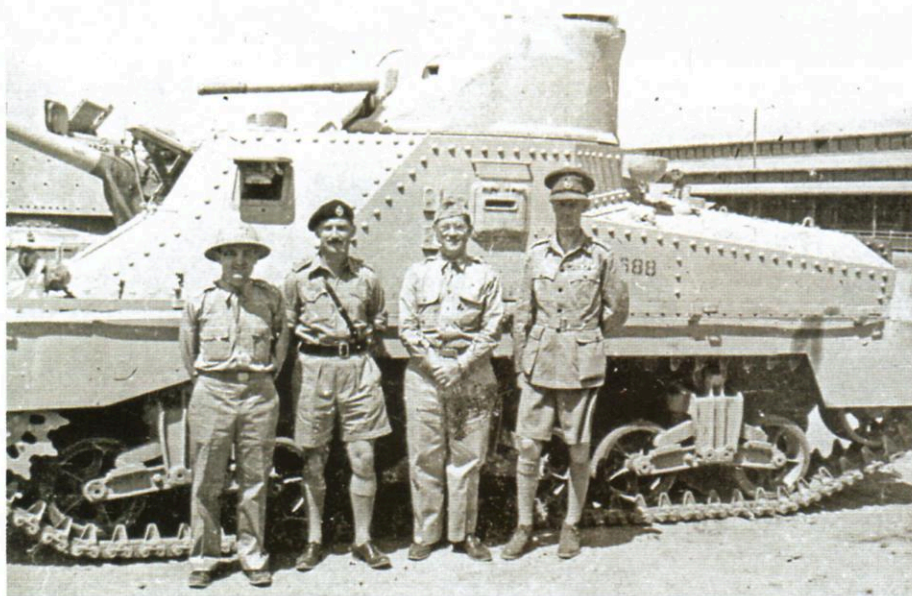
The heavy losses of M4/M4A1 tanks in February 1943 could not be made up by existing supplies in North Africa, so older M3 tanks were used to re-equip some of the battalions, notably the 3/13th Armored which ended up with many M3 medium tanks. So actually, there were more M3 tanks in combat with the 1st Armored Division after Kasserine Pass than before. The only other US unit to use the M3 in combat in Tunisia was the 751st Tank Battalion, which served in support of the 34th Infantry Division. One of this battalion's tanks is depicted on the Academy decal sheet (tank number 3). The only other combat use of the M3 by the US Army was by the 193rd Tank Battalion that deployed a few medium tanks on Butaritari Island in the Makin atoll in the Gilberts on 20th November 1943 to support the 165th Infantry Regiment. However, these were M3A5 tanks fitted with wading gear and so would take a significant amount of work to build from the Academy kit.

Those Suspension Bogies!

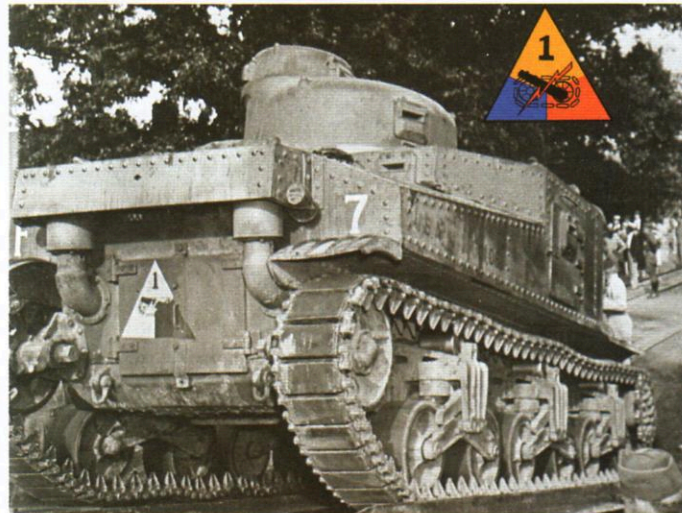
When I first saw photos of the Academy M3 kit from the Nuremberg Toy Fair, the detail that struck me was the shape of the bogies. On getting the kit, I plopped the suspension parts on a set of Ordnance drawings. Unfortunately, the main body of the bogie is about 2mm too tall: 12.5mm tall instead of the proper 10.5mm. Most modellers will probably find this discrepancy too minor to worry about, so they should just ignore the following discussion.



A British Lee in early non-standard camouflage at the Ordnance school outside Cairo, Egypt in 1941. It is fitted with WD-212 rubber blocked track. (MHI)



Another alternative for modellers who wish to build an early production M3 Lee would be one of those that served with the 8th Army in North Africa. This photo is especially interesting as it shows the US Ordnance liaison team in Egypt with British officers; Captain Bill Summerbell (in the pith helmet) and Lt.Col. G. B. Jarrett (in garrison cap) who was instrumental in founding the Ordnance Museum at Aberdeen Proving Ground. The Lee is fitted with British manufactured sand shields and has a stringer with loops attached to fit the 'sunshade' lorry disguise. (MHI)



ABOVE LEFT: A M3 of Company C, 69th Armored, 1st Armored Division in November 1941 during the Carolina manoeuvres. The 1st Armored Division used the Armored force triangle insignia carried on the glaucis plate and in the rear on the engine access doors. With the company tactical letter/number on the upper glaucis and split on the hull rear. (NARA) ABOVE RIGHT: An M3 of Co. F, 69th Armored, 1st Armored Division unloads from a rail-car in Rock-hill, South Carolina on 31st October 1941 prior to the manoeuvres. This photo shows several interesting details such as the original 'pepper-pot' exhaust configuration, the 1st Armored Division insignia on the rear engine doors, and the company markings 'F7' split on either side of the hull rear plates. The angle of this view prevents viewing of the blue dashes around the base of the turret. (NARA)



ABOVE LEFT: The first combat use of the M3 medium tank was by the 2/13th Armored Regiment, 1st Armored Division during the race for Tunis in November-December 1942. The battalion was heavily photographed during a maintenance break near Souk el Arba on 24th November 1942. This is the crew of M3 W-309,576 of the 3rd Platoon, Co. D, 2/13th Armored displaying different types of 75mm ammunition. The company tactical markings were painted on the crews' helmets as well in the form of a yellow circle with the marking in OD; these show Cos. D and E. (NARA) ABOVE RIGHT: An M3 tank W-309,503 of Co. F, 2/13th Armored is another example of a Chrysler-built tank with the distinctive reinforced bogie castings. Close examination of the helmets will show that they were marked with the company symbol in Olive Drab on a yellow circle and this is shown in the inset illustration as well. (NARA)

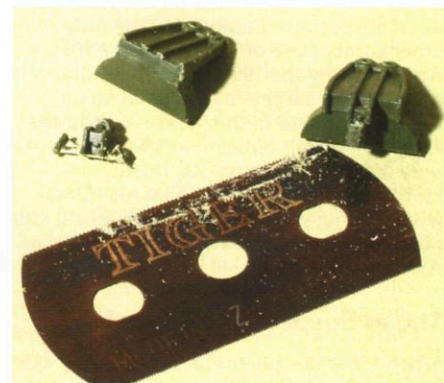


An M3 of Co. A, 751st Tank Battalion moves through Bizerte during the final fighting of the Tunisian campaign. This is an interesting view as it shows an ALCO built tank with untypical steel tracks, and a partial array of grouser stowage boxes with only one on the glacis, not the usual two. It is armed with the later and longer M3 75mm gun.

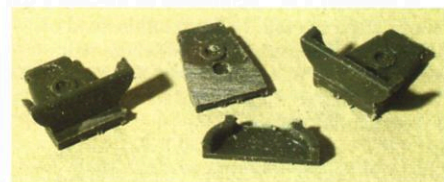
To correct this problem takes patience, but I was able to carry it out in a couple of evenings work. To begin with, carefully cut off the top detail from the front (part E1) and rear (part E21) of the bogie halves, which consists mainly of the supports for the return roller. Put these parts aside as they will be needed later. Next, on the front half of the bogies, make a vertical cut of the bogie (part E1), separating the spring pocket from the front panel. Reattach this 2mm lower on the bogie. The rear half of the bogie assembly (part E21) requires less delicate surgery since it won't be so evident. I cut off the top por-

tion containing the spring housing, and then attached this to the front half of the bogie in order to clean up the whole assembly. I then trimmed 2mm off the remaining lower section of the bogie. The resulting front bogie assembly can be improved by filling in the rectangular holes on the top which I did using sheet plastic.

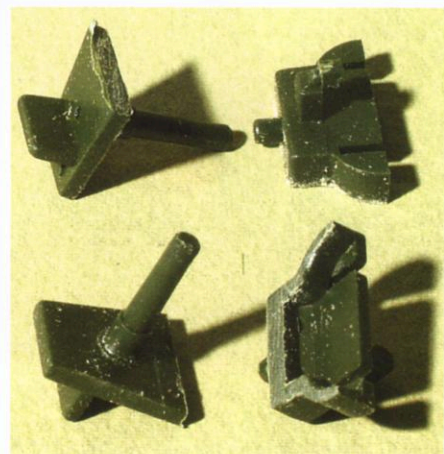
Once the glue had dried, I trimmed off the excess and cleaned up this assembly. Once cleaned up, I reattached the return roller supports, and added the stiffening ribs (part E7). The bogie uses the same springs from the alternate D47527 (aka M4) bogies that are provided



A fine, laser-cut saw is a useful tool for removing the detail from the top of the bogies.



Once the top detail is safely out of the way, a vertical cut behind the bogie front face removes the spring casing, which is then reattached 2mm lower.



The rear bogie parts have their top spring casings removed, and 2mm removed from their lower portions.



ABOVE LEFT: Although 2/13th Armored was first unit into combat with the M3, the type was later used by other elements of the division; a tank of Co. H, 3/13th Armored seen here in Tunisia on 8th February 1943. The tactical markings of the 3rd Battalion used a slanted rectangle instead of the vertical rectangle of the 2nd Battalion. (NARA) ABOVE RIGHT: Rear view of M3 E6, registration W-301,043, of Co. E, 69th Armored, 1st Armored Division during the Carolina manoeuvres on 13th November 1941. The DTA tanks appear to have had their registration numbers painted in black instead of the new blue drab. The regiment followed the divisional practice of painting three-inch-high dash markings around the base of the turret in the regimental colour of medium blue, which on the M3 medium tank were about three inches tall and 12 inches long. (NARA)



The front and rear spring housings are joined, and some plastic strip glued into the excessive gaps of the top stiffening bars.

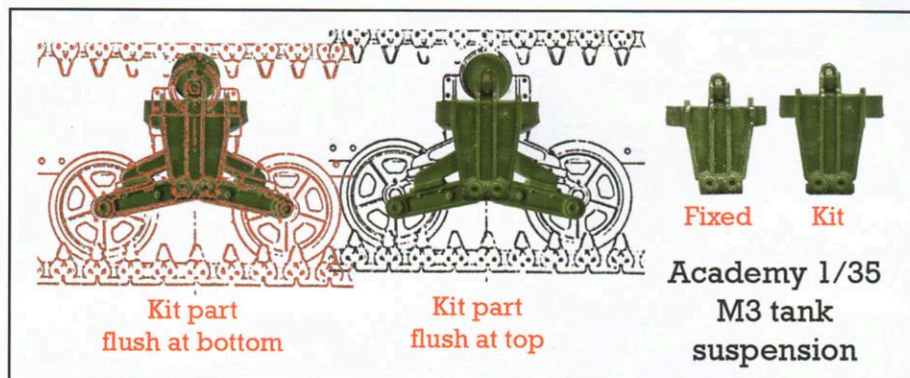


Once the cement has dried thoroughly overnight, the bogies are cleaned up. The springs also need to be lowered by 2mm by shaving off their tops.

BELOW: The reconfigured bogie with the various bits reattached to the top.



as an option with the kit. Unfortunately, these are 2mm too tall for the corrected bogie and so have to be trimmed down. By the way, the D47527 bogie is not really usable on this configuration of the M3 Lee as it only appeared on the later hull, which did away with the side doors and introduced other changes not included in the kit. On the other hand, it nicely reinforces a Sherman spares box!

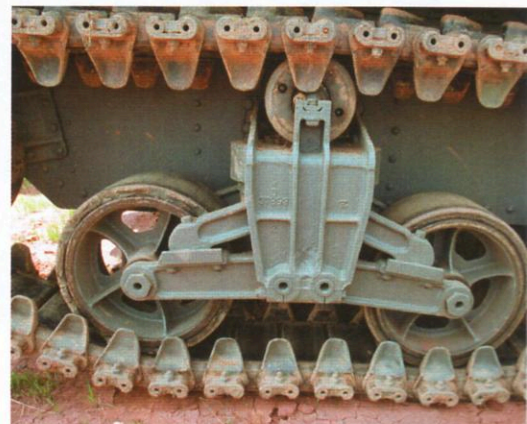


This composite photo shows the original kit bogie superimposed on an Ordnance plan of the suspension to show the dimensional problems.

With the front/top bogie assembly complete, I attached the rear part of the bogie assembly directly to the hull, then the suspension arms (parts E-18/-40) and wheels. For more fastidious modellers, the return roller provided in the kit is slightly small and not exactly the right shape. The return roller should be 6.5mm in diameter, but is about 6.2mm, and should have a flat front while the kit return roller is bevelled. I ignored these discrepancies, as they are not particularly evident.

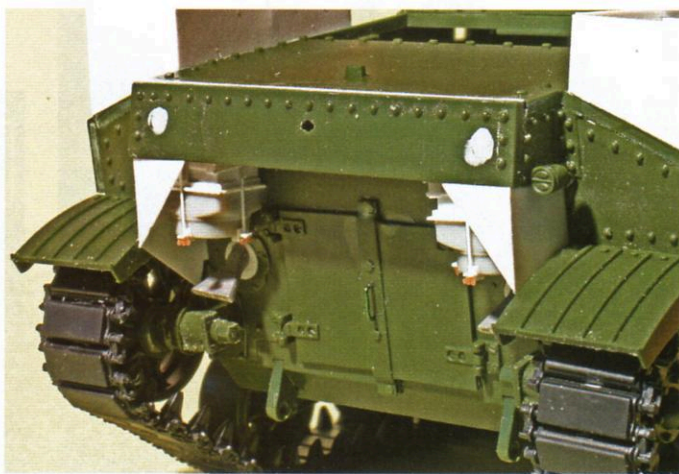
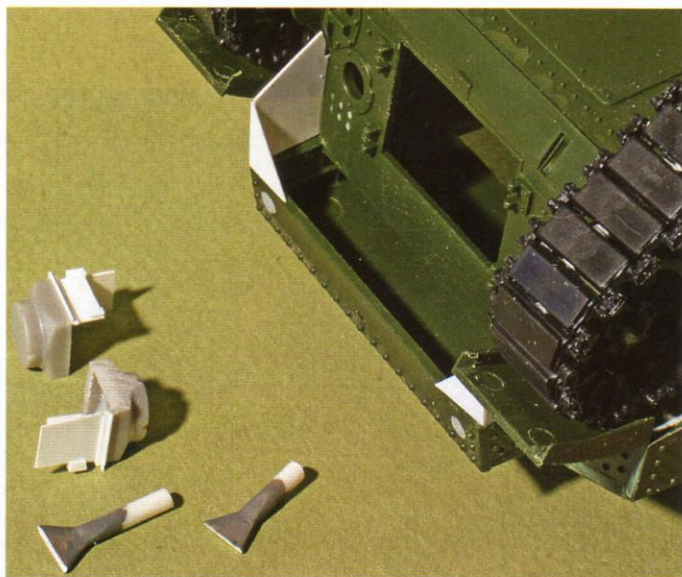
With the bogies in place, I added the rear idler. The idler mount provided in the kit is not very well detailed, especially where it meets the track tensioner (parts B16/-17). I made some cosmetic improvements to this area, but in reality it would have to be substantially rebuilt for true accuracy.

The kit comes with the same T51 rubber block track as in other Academy M4/M12/M10 kits. To be perfectly accurate, this kit should use T41 tracks for total accuracy if depicting an early/intermediate M3. The T41 and T51 appear to be identical but the T41 was reversible with the same thickness of track pads on both sides while the T51 was a mid-1943 non-reversible type designed to correspond with the new steel Sherman tracks and had a thick pad to the outside and a thinner pad surface to the inside. Personally, I don't think that the difference is really noticeable in this scale. I don't particularly

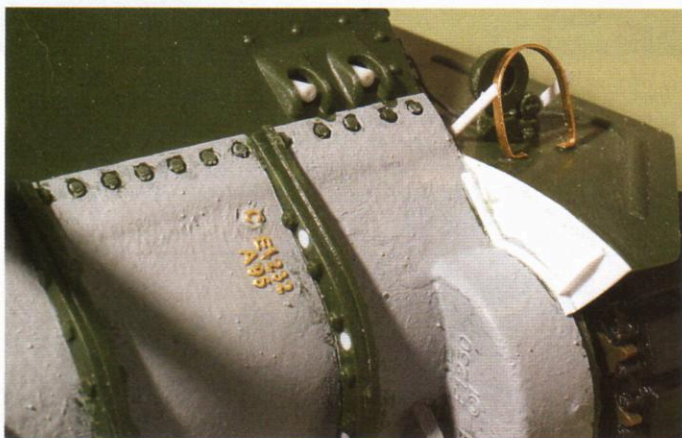


This close-up shows a reinforced D37893 bogie assembly with the body casting by National Malleable and Steel Castings Company, a configuration common on the Chrysler-built M3 medium tanks of the 2/13th Armored Regiment. The springs on this bogie are old leading to 'suspension sag'.

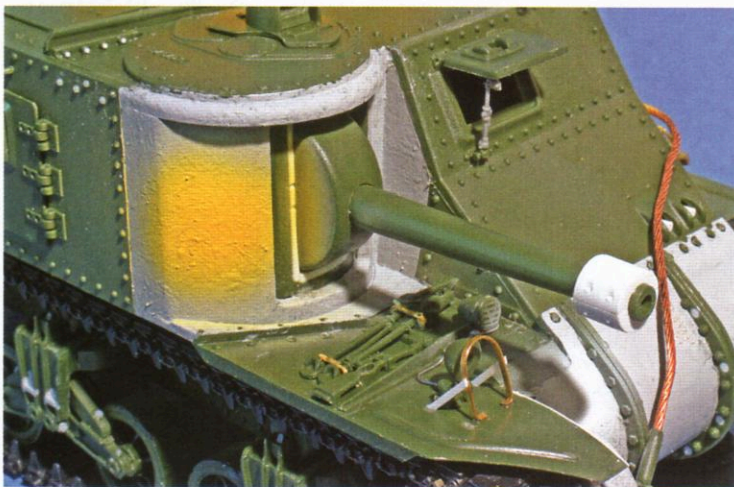
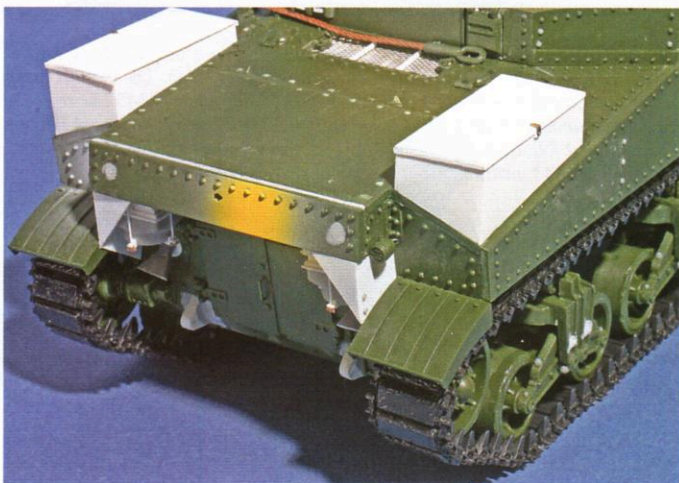
like vinyl track, and so I substituted some AFV Club T51 individual link styrene track for the kit's vinyl track, but this meant using another drive sprocket from the spare's bin as the Academy drive sprocket is a bit narrow.



LEFT: The rear superstructure overhang is reworked with a pair of fishtail exhaust stubs, new air cleaners with the lower pan from the Sherman spare's box, and the later metal enclosure from sheet plastic. ABOVE: The intermediate style of exhaust with all the various bits in place. BELOW: The rear bins in the kit are too small and so were replaced by new ones made from sheet plastic.



ABOVE: A close-up of the transmission cover showing some casting numbers added from Aber 1mm PE lettering, injection pins filled in on the flanges of the cover, new brass brush-guards, and other small detail additions.



ABOVE LEFT: There is too much space between the gun mantlet and the gun shield, so this was filled with plastic strip. The 75mm gun counter-weight was made from a piece of plastic tube and plastic discs. The yellow paint is a preliminary stage for applying the unit markings. ABOVE RIGHT: The .30 cal tripod has straps attaching it to the mounting strips. Since AFV Club track is a preliminary stage for applying the unit markings. ABOVE RIGHT: The .30 cal tripod has straps attaching it to the mounting strips. Since AFV Club track is a preliminary stage for applying the unit markings. ABOVE RIGHT: The .30 cal tripod has straps attaching it to the mounting strips. Since AFV Club track is a preliminary stage for applying the unit markings.



Tweaking the Hull

I usually try to get the suspension out of the way first as it tends to involve most of the tedious work. With the bogies in place, I added the front transmission cover and the rear hull plate. One minor detail, when removing the flanges for the front of the transmission covers (parts B47/-48) don't clean off the mould seam running on the face of the part! In actuality, these flanges are

made up of two pieces and should have a seam running down the centre. Unfortunately, the kit parts are marred by a series of injection pin marks, which are on the more obvious side. I cleaned these up by gluing small discs of .010 thou plastic sheet into the depressions, made with a Waldron punch-and-die.

The front transmission cover requires little other attention except for extra detail and I added some casting numbers on the centre

portion, and then added casting texture using Mr Surfacer 500. Incidentally, the casting numbers on US tanks are not just random numbers. There are usually three elements to each set: a manufacturer's symbol (such as the C in a circle); the part number (in this case E1232 for the centre portion of the transmission cover); and finally an individual part sequential number.

The rear of the hull involves a lot of potential improvement as mentioned above if



While the 1st Armored Division was deployed in combat in Tunisia, other US tank battalions were training in the UK. This is Buccaneer W-3,028,835, a late production M3 tank near Perham Downs on 6th December 1942. These later production tanks can be distinguished not only by the long M3 75mm gun, but also by the absence of side doors and the two, grouser stowage boxes on the glacis plate and roof. (NARA)



ABOVE: A detail view of the corrected suspension after painting. BELOW: Another example of M3 tanks of the 3/13th Armored Regiment in action in the Spring of 1943. The rear markings on this tank identify it as belonging to the 2nd Platoon, Co. I, 3/13th Armored. By this time, US tanks were camouflaging their tank by painting them with swathes of mud. (NARA)



ABOVE: Aside from the 1st Armored Division, the only other US unit to use the M3 in combat in Tunisia was the 751st Tank Battalion that supported the 34th Division. This unit painted large tactical numbers edged in white on the rear of their turrets as seen here. (NARA)





Work begins on the turret by substantially reducing the incorrect bulge under the cupola using a file. At the same time, the bulge adjacent to the trunnion is added with plastic and putty on the front left side of the turret.



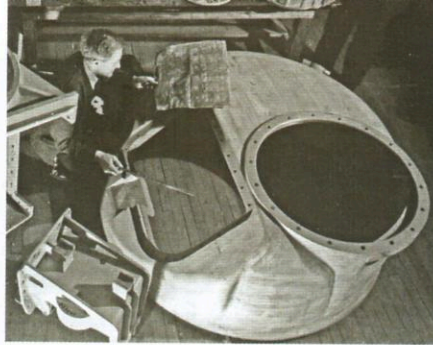
The turret port on the right rear side is reconfigured and blended into the turret with putty.



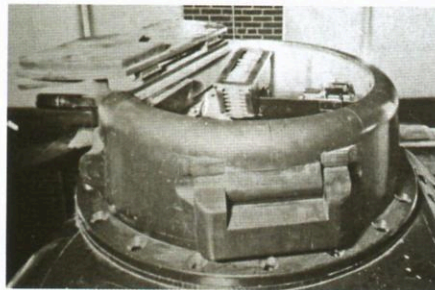
The front of the cupola can use some reshaping, and the upper part should be faired into the main body of the cupola and reshaped with a more rounded edge.



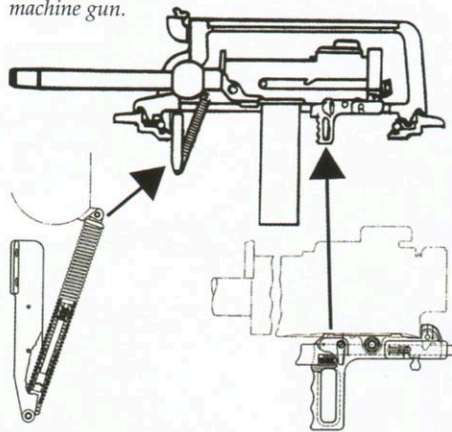
The finished cupola includes the tank commander figure, an improved .30 cal machine gun with ammunition box, and a brass .30 cal Barrel from Adler's Nest.



An interesting photo that shows the wooden mock-up or pattern for the M3 turret casting. As can be seen, a vertical protrusion is evident on the turret side under the commander's cupola, and a bulge is also evident further forward on the turret reinforcing the trunnion.



This interior view of a M3 pilot cupola shows the ammunition belt feed assembly for the .30 cal machine gun.



ABOVE: The confined space inside the cupola necessitated changes to the Browning M1919A4 'fixed' machine gun including a unique pistol grip and trigger unit under the bottom of the receiver and an equilibrator spring under the front to balance the mount as shown in these drawings. BELOW: A nice close-up showing details of the cupola of a M3 tank of the Co. D, 67th Tank Battalion commanded by Sergeant William Meek in early 1942. The hatch folded in two with the front portion folding below where it was held in place with a small spring-actuated clip.



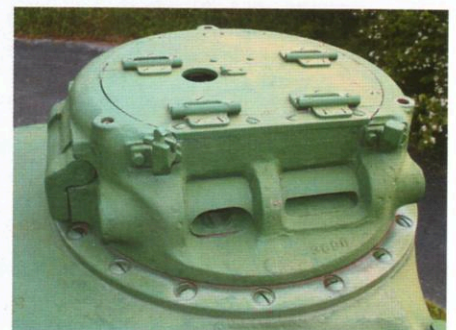
This particular M3 preserved in Newark, Delaware was the first production M3 tank and built at the Chrysler-run Detroit Tank Arsenal. The turret uses a casting from ASF and under some lighting conditions; the subtle bulge on the turret side under the cupola is barely visible.



Close-up of the ASF turret on the Newark M3 shows that the side bulge blends in very gradually and is not as prominent as depicted in the kit.

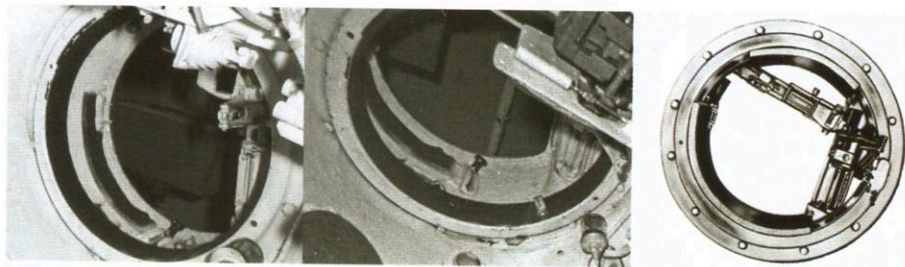


A detail view of the side port on the M3 turret.

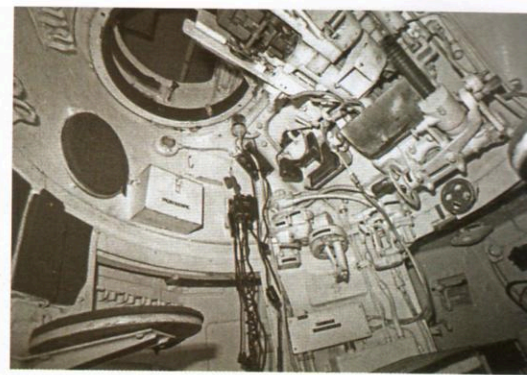


ABOVE: Cupola on the Newark M3 helps explain the reshaping needed on the Academy kit part. BELOW: Another view of the Newark M3 cupola showing details, such as the right view port cover.





Composite photo of views from underneath the cupola showing the padded dark green strips around the edge, the machine gun mount, and the small levers for opening the view slit covers.



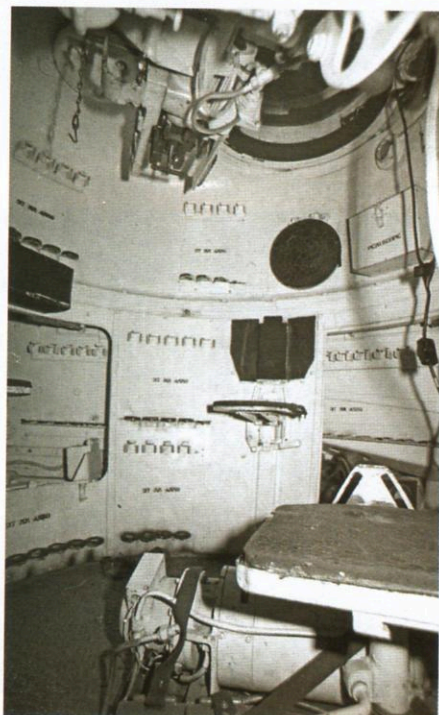
A view from the bottom of the turret basket looking up into the turret of the Patton Museum's M3A3 showing the complicated details under the 37mm gun.



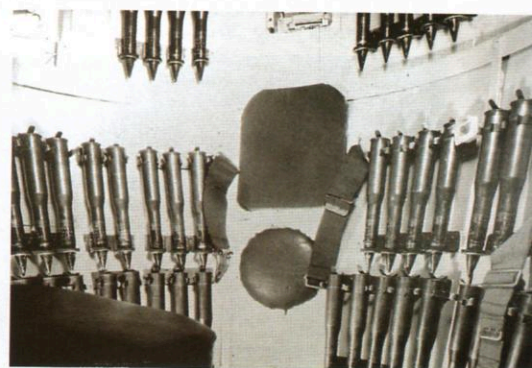
Turrets cast by General Steel Castings had a somewhat more prominent bulge than the ASF and Continental castings, and this one is seen on a M3A5 at APG.



Front view of a General Castings turret on the M3A5 at APG shows the trunnion bulge fairly clearly due to the lighting.



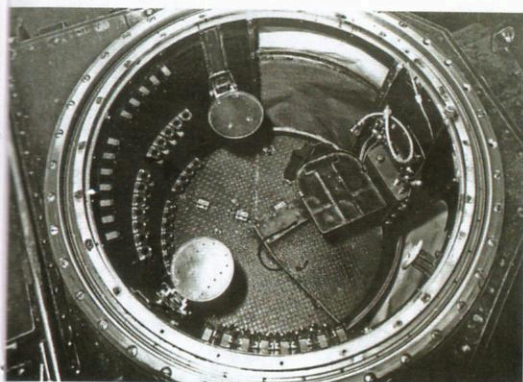
Interior detail of the turret basket of the Patton Museum's M3A3.



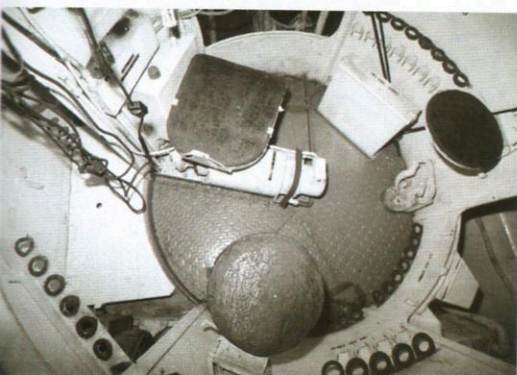
Stowage arrangements for 37mm rounds in the M3's turret basket.



Clips for 37mm ammunition on the right sidewall of the M3A3's turret basket.



ABOVE: An interesting view looking down into the turret basket on an early production M3 tank.
BELOW: View down into the turret of an ex-Brazilian M3A3 medium tank preserved at the Patton Museum at Fort Knox.



the engineering on the upper hull to be excellent, and it accurately captures the actual configuration of the tank armour plates.

I didn't bother at all with the kit interior because I am not a big fan of modelling tank interiors as they take an inordinate amount of time to assemble, especially if detail is added; and in the end they are hardly visible. This is up to the personal taste of each modeller, and I have provided a bunch of interior photos for those valiant souls wishing to super-detail their model.

The two stowage bins provided in the kit (part B53/-54) are too small, measuring 10mm x 26mm instead of the proper 14mm x 30mm (W x L). I replaced these with new ones made of sheet plastic. The rivets on the rear superstructure plate (part B32) have a distorted oval shape on the side panels, and I removed these and replaced them with rivets salvaged from under the stowage bins or you could use Grandt line plastic rivet heads. Another area that could use some attention is the 75mm gun shield (part D32) as there is too much space between this and the mantlet (part D5). I used plastic strip to fill the gap.

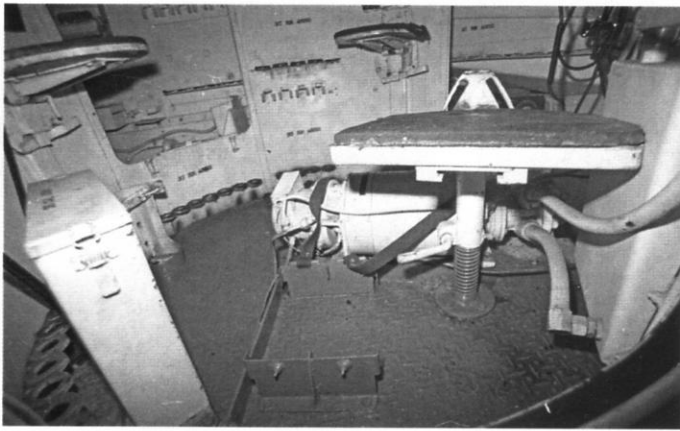
The Turret

As mentioned earlier, the kit turret has shape problems and the solution depends largely on the actual tank being modelled. Since I was intending to depict a Chrysler-built M3 of the 2/13th Armored Regiment with an ASF or Continental turret casting, the bulge under the commander's cupola needed to be substantially reduced. The overhang from the cupola also

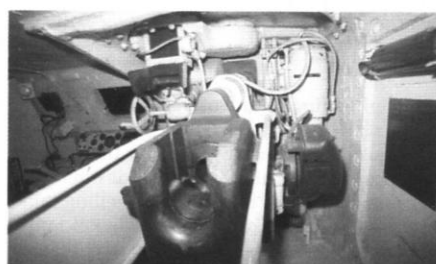
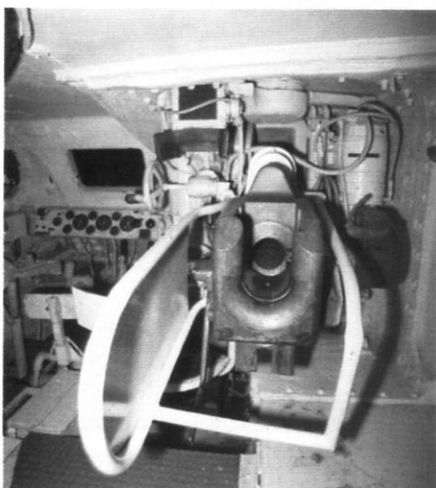
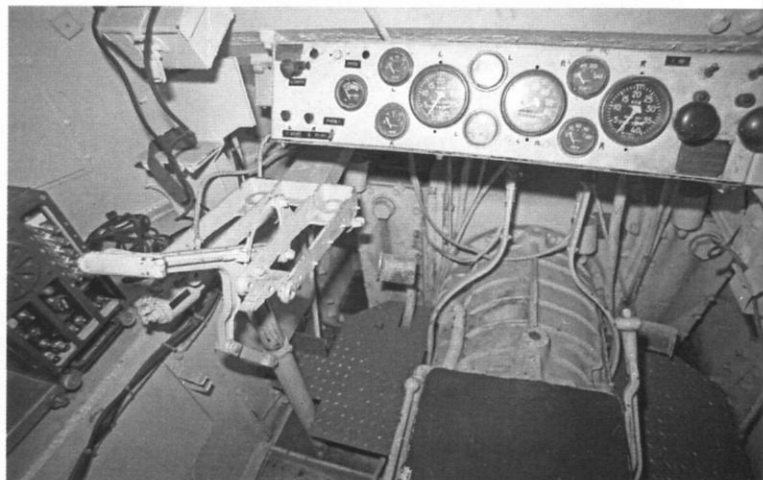
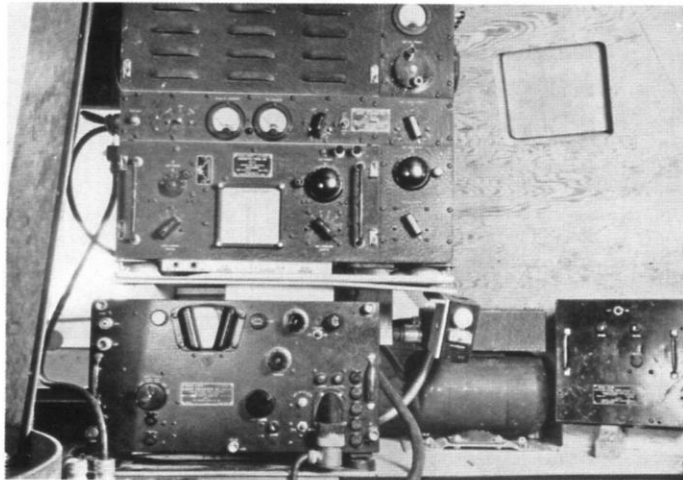
needs some reshaping as can be seen from the accompanying photos. After dealing with this, I added the trunnion bulge to the front left side roughly in the 10 o'clock position.

The kit's depiction of the side port (part D52) is not well done, lacking the distinct separation between the port and the lip around it. I carefully removed the port, built it up by adding some .020 thou plastic sheet behind it, and then carved out the opening. I then attached the trim to the turret and faired it in with putty. I was not particularly careful to smooth out all these changes, as I intended to add casting texture. I did this by roughly coating the surface with Tamiya Grey Liquid Surface Primer, and then sanding it a bit smooth after it had dried.

The commander's cupola provided in the kit has some subtle shape problems particularly in the front. I have also included some



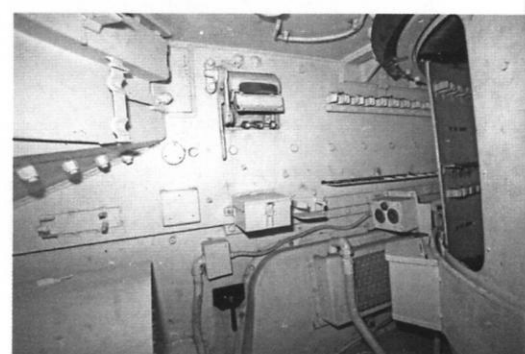
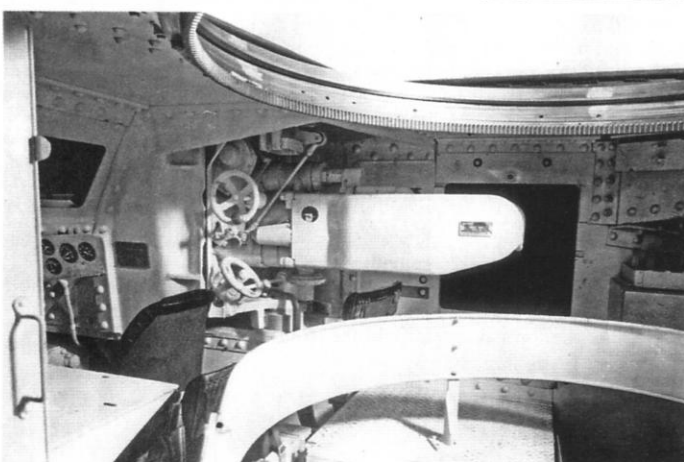
ABOVE LEFT: Turret basket floor details on the Patton Museum M3A3. ABOVE RIGHT: Driver's station in the M3A3. This is fitted with one of the later SCR-500 series radios, not the SCR-193 found in Tunisia. BELOW LEFT: For the true detail fanatic! A view of the arrangement of the SCR-193 found in most M3 medium tanks throughout 1942. BELOW RIGHT: A close-up of the transmission and driver's station in the Patton Museum's M3A3 with the mount for the two forward firing .30 cal machine guns evident as well.



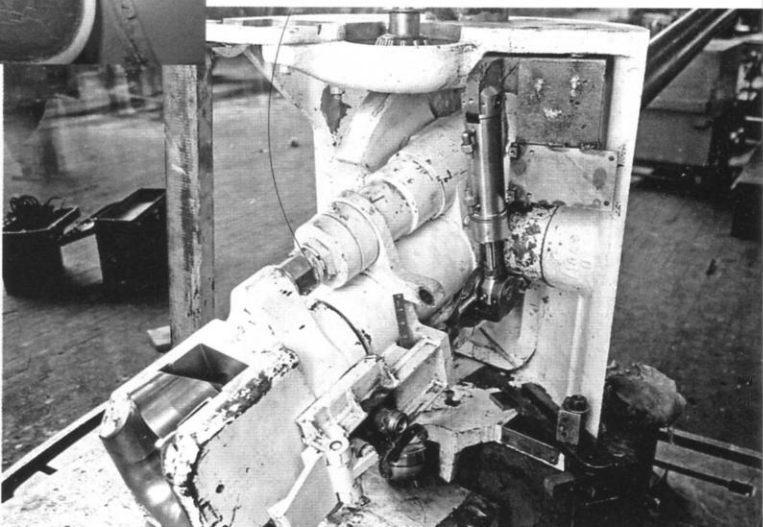
ABOVE: The M2 75mm gun in the Patton Museum's M3A3 is fitted with a stabilizer. BELOW: Detail view of the 75mm gunner's seat.

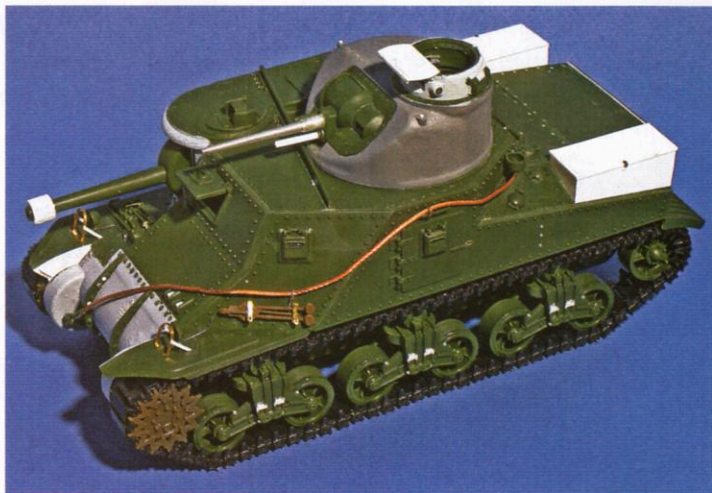
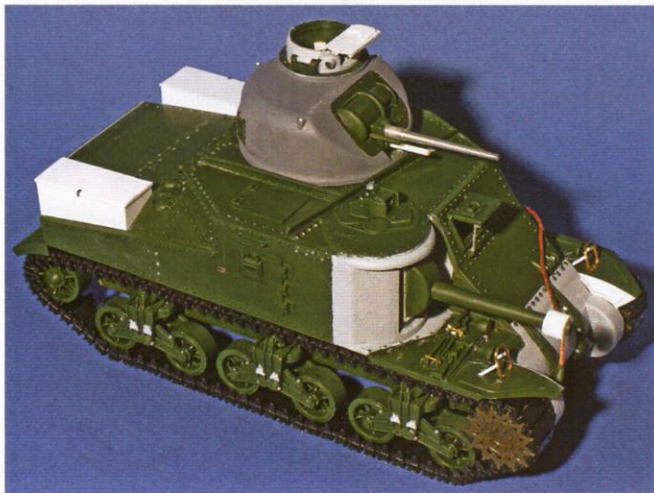


ABOVE: A general view of the M2 75mm gun in the M3A3. BELOW: An interesting wartime factory view inside the hull of a M3 showing the 75mm gun position more clearly since the turret is not yet fitted.



ABOVE: The rear bulkhead inside the Patton Museum M3A3 immediately behind the gun. Since this is a diesel-powered version, the details of the engine bulkhead area are different from the M3 configuration for the Wright R975 gasoline engine version depicted in the kit. BELOW: An interesting photo from the Second World War shows an M2 75mm gun and mounting removed from the tank.





The finished model prior to painting.



The first phase of painting is shown here with the basic airbrushing completed, and the markings in place, but before the wash and accent painting has been undertaken.

detail photos here for anyone interested in adding some interior to the cupola. This cupola was fitted with the M1919A4 'fixed' tank machine gun, which had a vertical buffer fitted to the rear of the receiver (replacing the conventional pistol grip and horizontal buffer) which is represented by a vertical bar on the kit part. Curiously enough, the cupola

M1919A4 had a unique pistol grip and trigger remote firing linkage and cocking mechanism, and the drawings here show this feature along with the equilibrator fitted under the front of the gun. I didn't bother with either of these features as I planned to add a tank commander figure so the details would be covered up. I did add the ammunition feed

carrier over the top of the receiver, which is shown here in photos. The kit hatches are a bit thick and I replaced them with new ones made from .010 thou plastic card.

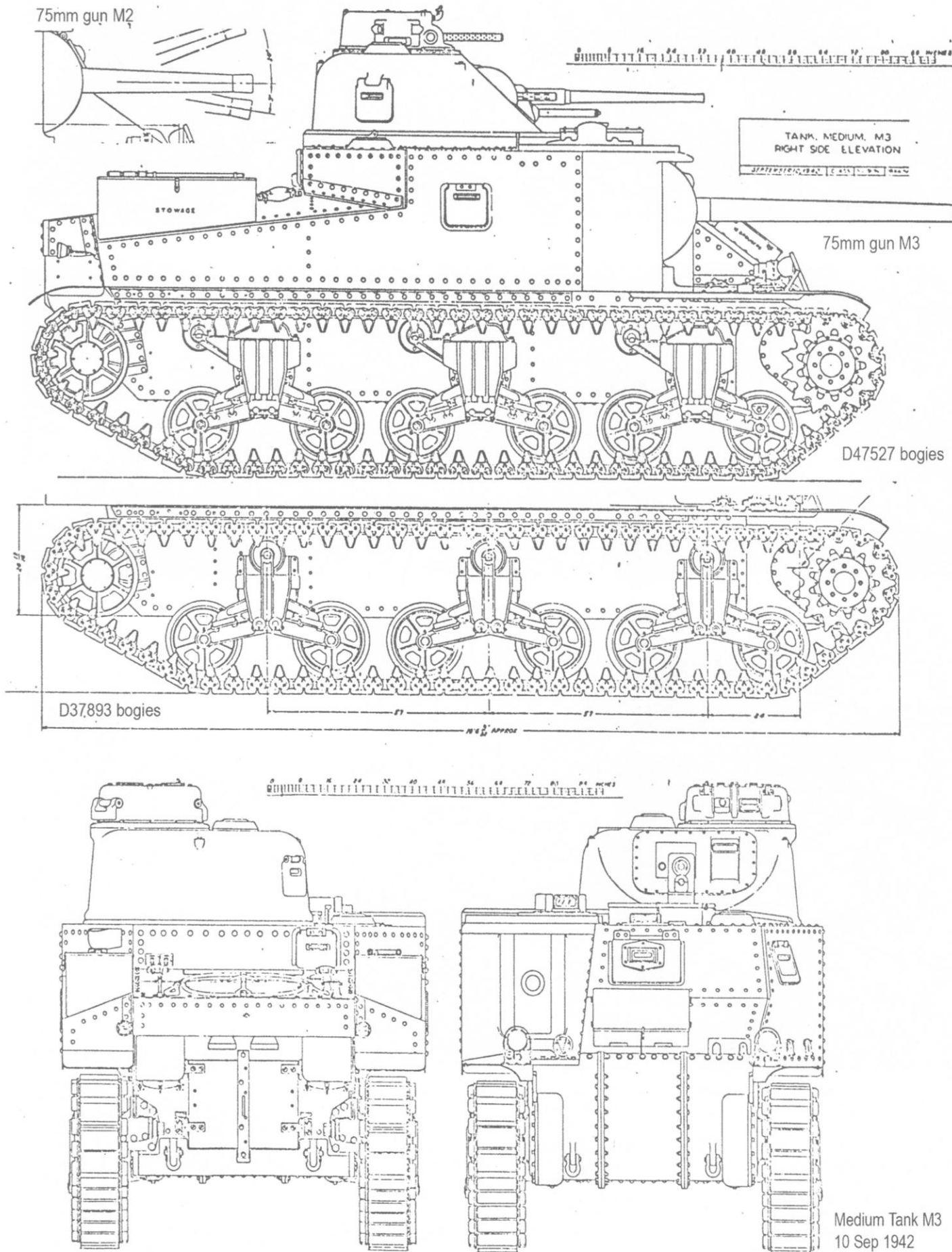
The kit's 37mm gun assembly is nicely done, though the co-axial .30 cal M1919A4 machine gun opening is a bit low. I replaced the kit barrel with a Jordi Rubio aluminium barrel as it better captures the slight flare at the end of the gun tube.

Basically All Olive Drab & Yellow

I decided upon a tank of the 2/13th Armored during the initial Tunisia fighting in December 1942. (I built a Tamiya M3 some years ago and finished it in the later scheme with mud camouflage.) Although the kit provides decals for one of the tanks of this battalion, 'Kentucky', I decided to do my own markings, as yellow decals are seldom opaque enough on a dark paint finish.

I began by airbrushing some Tamiya flat White XF2 over the areas where the markings would appear, followed by Tamiya Yellow XF3 once this dried. I then reverse masked the stars using some of the pre-cut Eduard masks, and did the turret bar using some Tamiya yellow tape cut to the proper width. Likewise, the company markings were masked using Tamiya tape. Once this was done, I began the main paint finish, by painting the lower hull in Tamiya Khaki Drab XF51 followed by Tamiya Buff XF57 on the exposed surfaces of the bogies and track to replicate accumulated dust. On the upper surfaces, I used a lightened Olive Drab consisting of roughly 60% Tamiya Olive Drab XF62 and 40% Tamiya Dark Yellow XF60. I then broke up this finish by airbrushing swathes of Tamiya Dark Yellow and straight Olive Drab to create a more streaked appearance.

A representative compilation of elevations of a later version of the M3 Medium taken from original US Ordnance drawings mentioned in the text. The original drawings made in 1942 are large and dimensioned in inches and very useful for checking the basic dimensions and shapes of US manufactured vehicles. These views are just a very small sample of the drawings available in US archives.





The finished model after painting.



Company Markings

With the basic airbrushing done, I then turned my attention to the markings. The 2/13th Armored used battalion markings on the hull sides and rear consisting of a vertical bar with a small square to the right, at the top for Company D, in the middle for Company E and at the bottom (like an 'L') for Company F. To the right of this was the company number in yellow which I duplicated using a small dry transfer number. The US Army also introduced a system of transport markings around the time of Operation Torch consisting of a four-digit number with letter suffix and an accompanying set of three coloured bars. In the case of Co. D, 2/13th Armored, the number was 6258-F and was usually painted on the side access doors, and sometimes on the front and rear; I did these using small dry transfer numbers. The coloured bars for this unit were Olive Drab on the top and bottom edged in white for visibility, and red in the middle. These usually appeared on the transmission cover on the right side and the rear hull on the left side, though they are seldom visible in photos as they tended to get covered with dust or painted over. I also did some detail painting at this stage such as the tools and tow cable.

None 'Pigmented' Weathering

I wanted the tank to look dusty and weathered, so I used a somewhat different approach than my usual weathering technique. I am not fond of pigments due to their lack of permanency and still prefer paint for weathering. Instead of my usual dark wash of mineral spirits (white spirits) and sepia oil paint with a light-coloured dry-brush for accent painting, I reversed the combi-



A close-up of the commander figure after painting. This figure uses one of the new Hornet US tanker heads.

nation using a wash of Humbrol Buff and Titanium White oil paint in a solution of mineral spirits, with dry-brush/accenting painting, with a dark Olive Drab mixed from Humbrol Olive Drab and Sepia artists' oil paint.

Crew Figure and Stowage

The crew figure is a jumble of parts with the torso from a Corpus figure, the arms from the spares box, and the hands and head from Hornet. The rear deck stowage is from Apoxie Sculpt epoxy putty except for the left bedroll, which is from one of the excellent Blast stowage sets.

In Conclusion

Overall, the kit is a big improvement over the old Tamiya kit and will certainly look a good deal better straight out-of-the-box. On the other hand, Academy continues to have problems with basic dimensional accuracy issues, and I wish they would spend more time on this than gimmicks - such as the interior. But I suspect that gimmicks like interior details sell a lot more kits than pinpoint accuracy! ■



The rear stowage, except for the bundle to the left, was made from Apoxie Sculpt epoxy putty.



The 2/13th Armored Regiment during December 1942 had a two-digit number painted or chalked on the glacis plate, done here with a white pencil.

Cookie Sewell concludes his four-part series on the history and modelling of an export tank in Soviet service and builds models of the T-26RT and T-26-1 Model 1939 types



T-26 Light Tank

Model Number 3

T-26RT Model 1936/1937 Radio Tank, Commander, 9th Company, 3rd Battalion, Unidentified Brigade, Moscow Military District War Games, 1938

This is as close to an 'out of the box' T-26 model based on the Zvezda kit. But I decided to pick on like ordering an American car - 'loaded' with all of the options available in 1936 and 1937. I used one complete (again mixed and matched from several boxings) Zvezda T-26 Model 1933 kit with a lot of scratch built parts, a Jordi Rubio 45mm gun barrel, and the wheels from another Zvezda T-26 kit.

This version also used the welded hull, so no major changes were made to the basic lower hull and chassis pan. I started by assembling the hull pretty much per the directions. The Model 1936 has the extended driver's compartment, and only needs rivets to dress up the hinges.

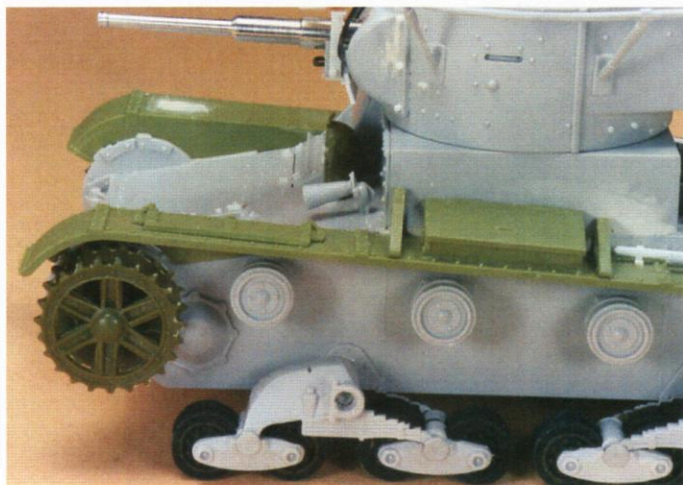
The engine deck again needs attention. There is no need to do anything but detail the engine deck area. However, in place of the awkward pole jack this tank uses a hydraulic jack mounted on brackets with clamps. I found some extra ones from a

Zvezda BT-5 kit that found out it wasn't 'drop resistant' and used them with some detailing; the brackets and clamps made from scrap styrene. Model Kasten wing nuts were again used to seal it.

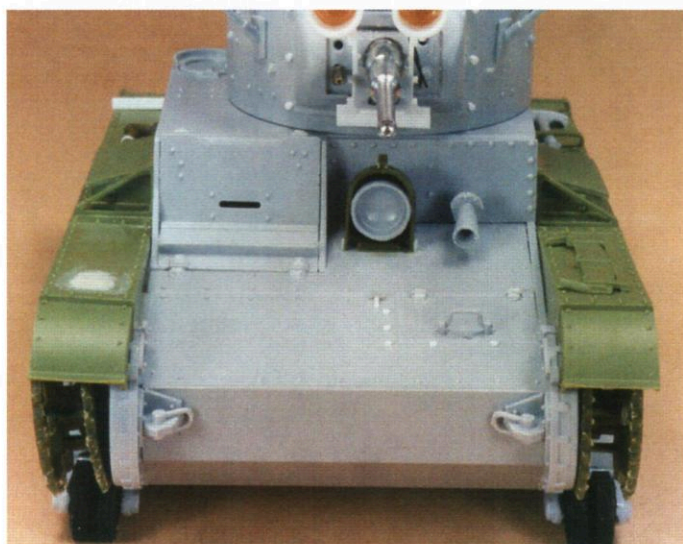
One set of spare bogie wheels was created from Zvezda wheels, drilled out to simulate the axle-bearing hole. A t-shaped mount was made from scrap, with a notch filed into it to accept the wheel centre section, and then thin strapping from 0.005 styrene was added as a tie-down. A section of a spring from another Zvezda kit and three track links were added as well. Finally, a taillight mount was made from a short section of Contrail tubing with one end plugged by Microrod and a scrap plastic mounting. (I found the one on this version!)

Both the plenum box for the air exhaust and the air intake grille were made off the model using the techniques previously described in Part Three in Issue 8. The Model 1936/1937 also had a cowl and mesh grille inside the cowl, and these were added as well.





ABOVE LEFT: Left front view of the model. Since I ran out of Zvezda fenders I had to salvage a set from an out-of-the-box one (which was wrong, ergo consigned to the parts box - ah, the joys of getting good references AFTER you build the model!) Since the saw was on the wrong side for this variant, it had to be removed and the resulting damage to the fender filled in. ABOVE RIGHT: Left rear view of the model. The hydraulic jack is a lot smaller than the pole jack and, as such, no longer dominates the rear of the hull. Just visible here are the rivets under the rear of the turret bustle.



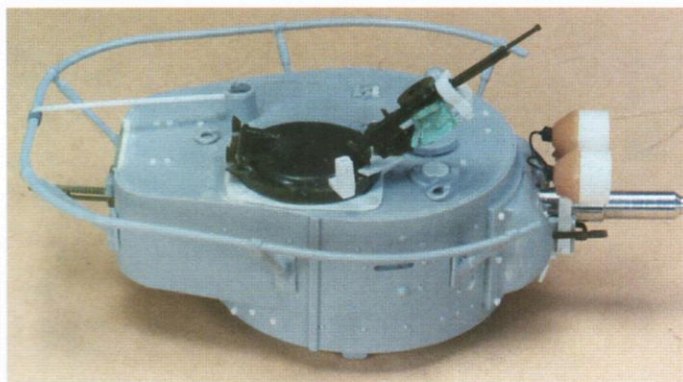
ABOVE LEFT: Bow view, again showing its hurt fender. Since this one uses the kit's glacis, not much to change, but just detail. ABOVE RIGHT: Rear view of the model. There are some changes from the Model 1934, but thankfully most of those are simply what the Zvezda kit provides. Again, the kit has the new fender brace, air exhaust grille with cowl, new air intake grille, and added kit such as track links and hydraulic jack. Note how the spring set on this variant takes the place of one spare wheel set and is bolted to the deck. BELOW: Right rear view of the engine deck area. The hydraulic jack is smaller than the pole jack, but the top locking brackets for it are shaped to fit and tricky to assemble. I gave up and cut them out of solid sections of 0.040 sheet.

The model uses the stock Zvezda suspension. Again, the rest of the suspension is assembled per the kit instructions with the exception of the locking collar. I again painted the wheels before assembly and also the inaccessible parts of the suspension bogies so that there would be no 'white spots' after the model was finished. The drivers need to be thinned as described, but otherwise no attention is required unless you wish to 'super detail' the springs by adding details to them (I did not, but Steve Zaloga describes a method in his article on the Spanish Republican T-26 he built. *MM* Vol.28 No.18 1998.)

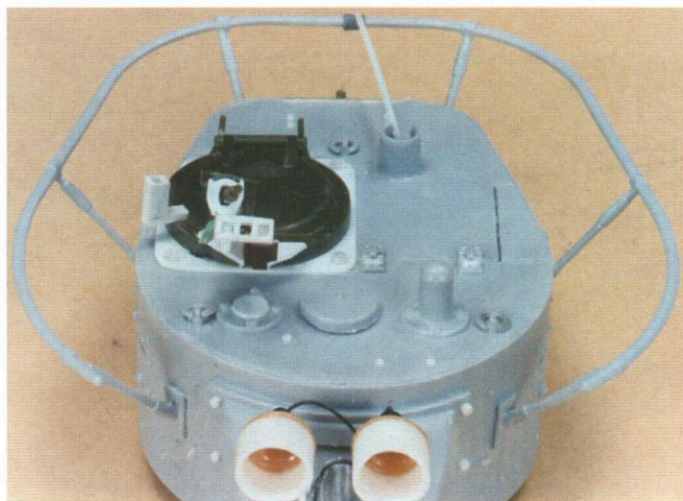
The muffler is again used with its three clamps and brackets, with the exhaust pipe again has to be removed and replaced with a section of 0.080 Contrail tubing 'salami sliced' to provide a new exhaust pipe. Here the pipe angles down, but is parallel to the plane of the rear hull plate. The ends of the idler mounts were also routed out with a Dremel Minimize and a dental burr to represent the adjustment openings on each one for the tanker bar to be inserted.

The Model 1936 and 1937 carried a lighter chain three metres in length, but it simply was

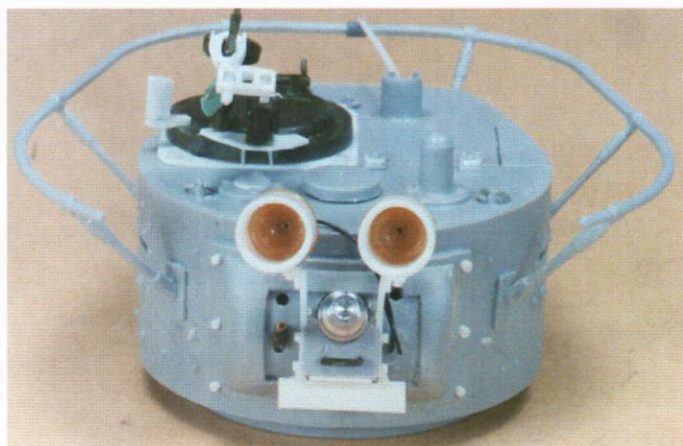




ABOVE: Right side of the P-40 mount on the turret. Apparently this mount was unpopular as the gun was fixed in elevation to a heavy cradle and the loader had to crank the mount up and down to adjust elevation; the later 56-U-322B let him set it at a comfortable height and then point and shoot with a simple U-shaped bracket. BELOW: Left side of the P-40 mount showing how its base plate covers the loader's hatch area and is secured with four massive screws. The shell catch bag is just visible below the drum magazine.



ABOVE: Head-on view of the P-40 mount, with the machine gun deflected about 5° to the left. I suppose the 'egg crate' design for the support bracket was to make it lighter but rigid, but it's still an odd design. BELOW: Head-on view of the combat lights, showing the third series of brackets and lights used. These were much simpler and sturdier, as the first two were flimsy devices looking like the front axle spring on pre-WWI cars. The lights point directly along the axis of the barrel.



ABOVE: Right side of the front of the turret, showing the other side of the mantlet and the splash/splinter guard under the recoil mechanism cover. Unlike other T-26s this is a very 'busy' area as the machine gun and lights are in close proximity to each other. BELOW: Rear view of the turret, showing the connection of the antenna feed to the antenna 'rail.' Also visible is the rear machine gun mount, which even operates.

ABOVE: Left side of the front of the turret, showing where the mantlet has been filed and sanded down to match the correct shape of the pressed steel version. The connectors for the 'combat lights' are also visible here. BELOW: The antenna feed for the 'handrail' antenna comes out of the protective 'cup' assembly at about 175° and fastens to a connector on the antenna. A notch is cut in the rear of the 'cup' so that the antenna feed comes out nearly flat.





LEFT: Head-on view of the 'combat lights' with the PSP lenses in place. Somehow I get the feeling these must have been like the Murphy's Law corollary about tracers in that they work both ways! BELOW: Finished model from the left front. I accidentally popped the tracks loose at the front behind the driving sprocket while handling it for the photos.



held on the six rear hooks on the hull stern plate. I added it after the model was finished, but for some reason (I personally think because my blackener - some form of prussic acid - was exhausted) it did not blacken thoroughly and is prone to chipping off and showing the brass colour.

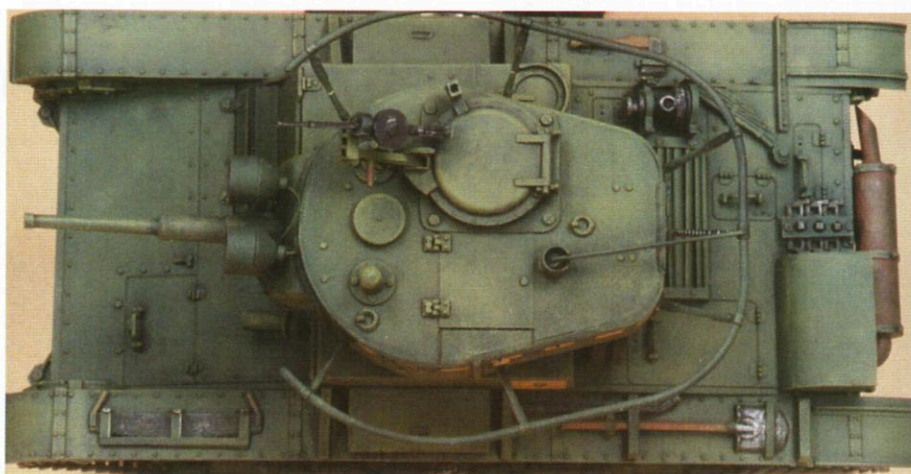
At the bow end, this tank used a folding headlight with an armoured cover. I added both a wing nut for locking it down and a notch on top of the headlight for fastening, but alas the latter did not survive painting! It also used the kit's horn, but angled downward.

The turret decking again required no modification other than an additional set of rivets at the front edge. The turret was modified to represent a late-model T-26 turret with four modifications used in this period plus the 'handrail' antenna: pressed steel mantlet frame, 'combat lights', the rear mounted DT machine gun, and a P-40 antiaircraft gun mount.

First off, the kit's mantlet frame was carefully cut down on the sides at shallow angles relative to the longitudinal axis of the tank, becoming nearly 'see-through' from the inside, but still thick enough for assembly and painting. Once the configuration is correct, it needs the same six heavy mounting bolts on the sides of the frame as used on the Model 1934.

Next, the mantlet was drilled out to accept the Jordi Rubio barrel, which was also epoxied in place. The recoil mechanism housing was again detailed, but this time it had a shell fragment and bullet deflector added underneath it. Again, an old Tamiya M60 machine gun was cut down and sanded to shape to create the coaxial DT machine gun barrel.

I then added the rear DT mount in place of the turret rear hatch. The Zvezda Model 1931



Top view showing the arrangements of the P-40 mount and the antenna. The new panel lines on the commander's side of the turret roof are also visible.



ABOVE LEFT: Front right hand view of the turret, showing the P-40 mount. The cartridge catch bag is easy to see in this photo. ABOVE RIGHT: Rear view of the turret showing the rear machine gun mount. As noted before, the stripes were hand painted and, as such, I went back to 'fuzz' them up to look more like hand-painted efforts.



Finished model from the right rear. Again, minus the pole jack the engine deck looks sort of desolate.

comes with two identical sprues for the turrets, which means each turret has both a machine gun mount and a 37mm cannon mount. Taking the one left over from the cannon turret, I assembled it and modified it to fit the opening for the rear turret hatch. With some finagling and careful removal of the hinges from the stock hatch, the new mount was installed and sealed in place with putty.

The P-40 mount came from an ICM T-28 'organ donor' that was squashed while awaiting painting, and was used complete after some modifications. One problem

with it was that first off it was not the early P-40, but the later 56-U-322B mount with a simple U-shaped pivot for the DT gun, and I liked the bulkier (and more accurate for the period) P-40.

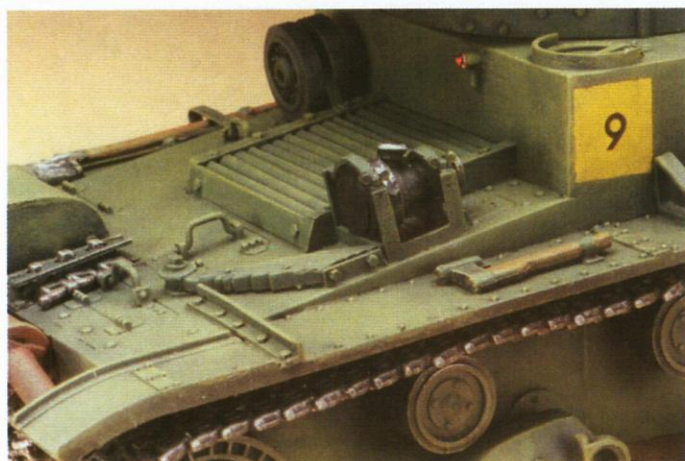
I first cut a blank plate to cover the opening in the right hand hatch of the turret, and after trimming off the lower combing and removing the simplified and inaccurate gun mount platform, and sanding the hatch smooth, I installed the base on the blanking plate. I then cemented on the hatch cover and a new base mount for the elevating mechanism.

I extended the elevating mechanism with scrap styrene, and added the heavy 'egg crate' fitting for mounting the DT gun at the top; note that it offsets to the right. I carved a complete mount collar for the DT from 0.040 scrap and then trimmed it to give it some depth. I took one of the DT guns from the ill-fated T-28 and after cleaning up its seams, mounted a cartridge catch bag under it made from scrap and tissue. Lastly, I used two sections of Evergreen styrene channel to make the fold down traverse handle for the right side of the mount.

Even with the rear DT mount, the underside of the rear of the turret received the same dose of rivets and 0.060 punched styrene disk for the rear pistol port cover as the Model 1934. More bolts and rivets were added to the rear access hatch in the correct places.

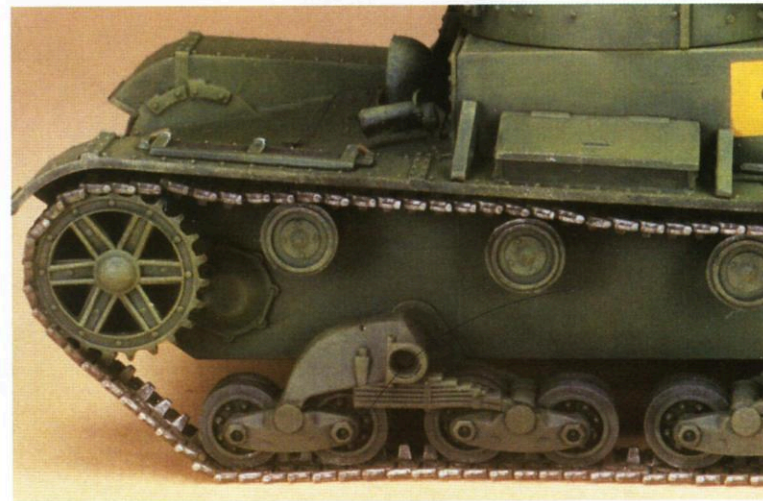
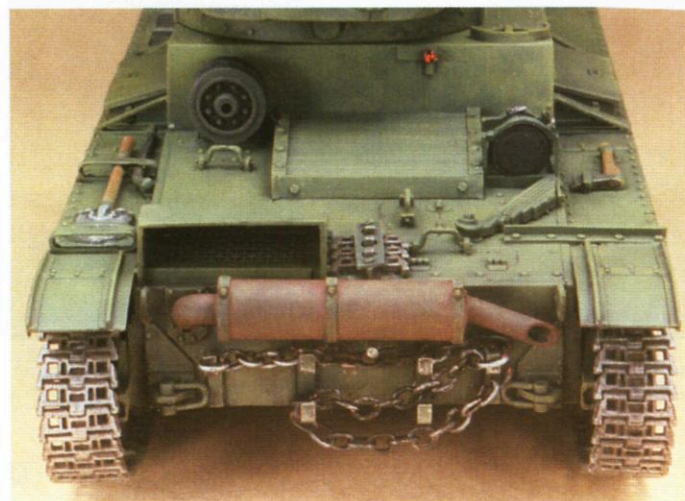
The top of the turret only needed to have rivets added, but when installing the radio antenna feed collar it needs a large notch cut in it at roughly 175° for the jacketed feed to be run to the antenna. I installed the antenna per instructions, but then used a section of Contrail tubing slit and snapped over the rail and a length of stretched sprue to hook up the antenna feed.

The last items to be added were the 'combat lights.' First, two 0.010 holes were drilled on the left side of the mantlet to the left of the telescopic sight aperture. Two brackets were made from strip and L-angle for mounting the lights. The lights themselves came from the scrap box (they once were part of an Italeri Opel Blitz, if curious to their origins) and tubes from Evergreen tubing. The lights had small pins from Microrod fitted into



ABOVE LEFT: Rear right side view of the engine deck. Again, this tank has a taillight, and the absence of the pole jack makes it easier to see (and be seen).

ABOVE RIGHT: Close-up of the glacis showing the horn pointing down and the armoured headlight cover. Alas, as noted this one lost its locking flange to the airbrush and I didn't catch it until looking through the camera viewfinder. Note that these tanks also were among the few to carry a single red star centred on the lower glacis plate. BELOW LEFT: Rear view showing the smaller chain used by these tanks. Crews apparently stowed it any old way as long as it did not drag along the ground. BELOW RIGHT: Left front suspension showing where the tracks popped loose. There is not a lot of area on the hinges of these tracks to cement, and they will be more fragile when completed. A few seconds with the butt end of a 'mouse-tail' file popped it back into place.



them, and a hole was drilled in the back of the light for the feed wire. Once the lights were installed, fuse wire was run from the mantlet to the back of the light and cemented in place with ACC cement.

Again, once the tracks were in place, the model was painted. First, the turret was given a coat of grey primer. Then first a coat of yellow and then one of blue were added, with masking in between. Yellow squares were painted on the sides of the hull. Again the model received a base coat of Floquil RML 70 Dark Green followed by a topcoat of Floquil Hunter Green.

The tracks and rest of the model were finished in the same manner as before.

Finally, it also received P.S.P Models Ltd 5 mm lenses in the headlight housing as well as the two 'combat lights.' While the open-faced headlight was not a problem it is more than a bit tricky getting cement, lenses and correct position to come together in those long tubes! This tank had a taillight and also received an MV Lenses red railroad lens.

Model Number 4

T-26-1 Model 1939, 2nd Company, Unidentified Battalion, Unidentified Brigade, 6th Tank Division, 28th Mechanized Corps, Tabriz, Iran, September 1941.

Of the four models, the T-26-1 requires the most surgery and the most work. This kit took the Zvezda Model 1933 hull and suspension combined with the casemate and turret from the Mirage T-26S/OT-134 kit. It also got a Jordi Rubio 45mm gun barrel and the wheels from another Zvezda T-26 kit.

I assembled the lower hull as per the other models, but then cut the hull sides of level



Left front view of the finished model. Like the Model 1936, I also broke the left track loose when photographing the model. It was fixed using the same method of wedging the track back down and using liquid cement to reattach the links.

with the scribed line on the side of the hull. I went to install the Mirage casemate, but then found it to be about 2mm too narrow and 2mm too short, but the correct height. This is an easy fix - you simply use 0.040 sheet strips around the perimeter of the casemate bringing it up to the correct dimensions, but then it becomes a bit too wide for the hull. (I should have figured that the hull was too narrow by the same distance, but didn't catch this until later. Mirage used the same dimensions the other companies did and simply scaled down the casemate to fit on that size hull!)

I fitted the casemate into place with a slight offset to the left, which does not show up in most aspects of the model. As this was a weld-

ed hull tank, no major changes were required once the casemate was in place and the engine deck and glacis attached and faired in with putty. The Model 1939 uses the same driver's visor and door, so the openings on the Mirage casemate had to be enlarged a bit for them to fit. New hinges were added at the top and bottom as well. I also had to scribe in the driver's right side view slit and add rivets to complete it.

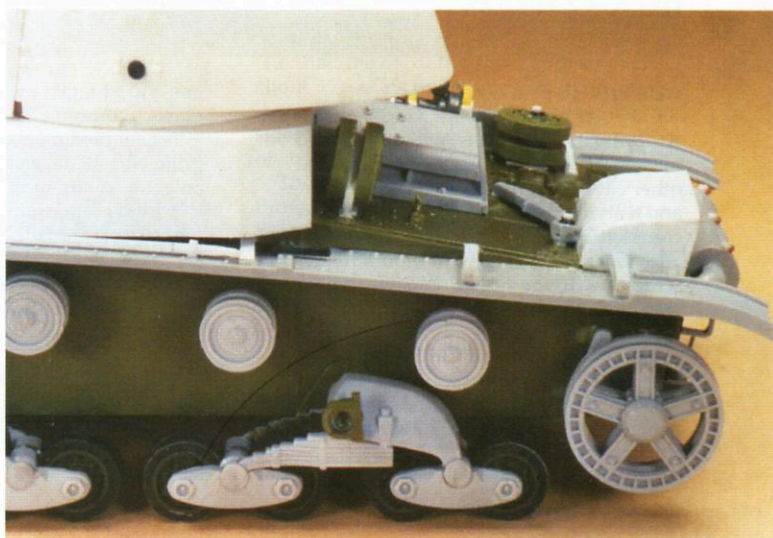
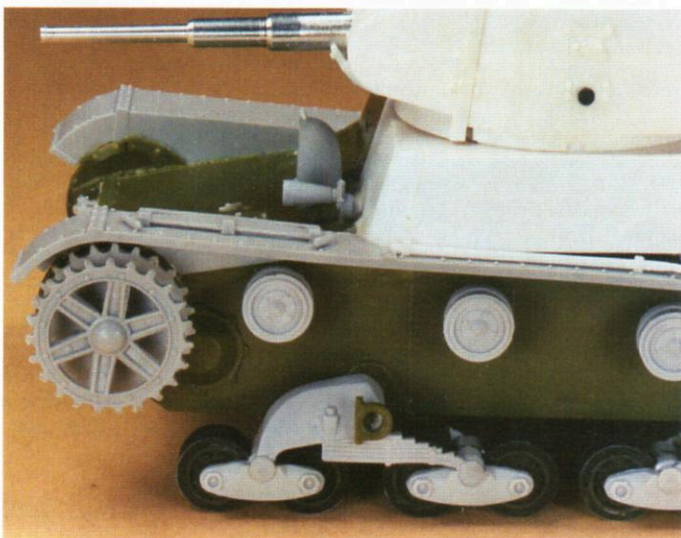
The engine deck needs no major modifications other than the air exhaust plenum box, but does need detailing. This tank also uses a hydraulic jack mounted on brackets with clamps; happily the 'organ donor' BT-5 had two of them. The jack mounts were made as per Models 1936 and 1937. Model Kasten wing nuts

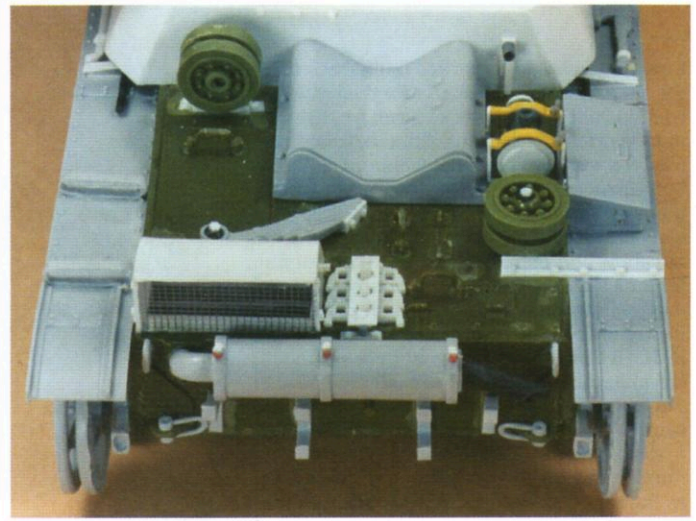
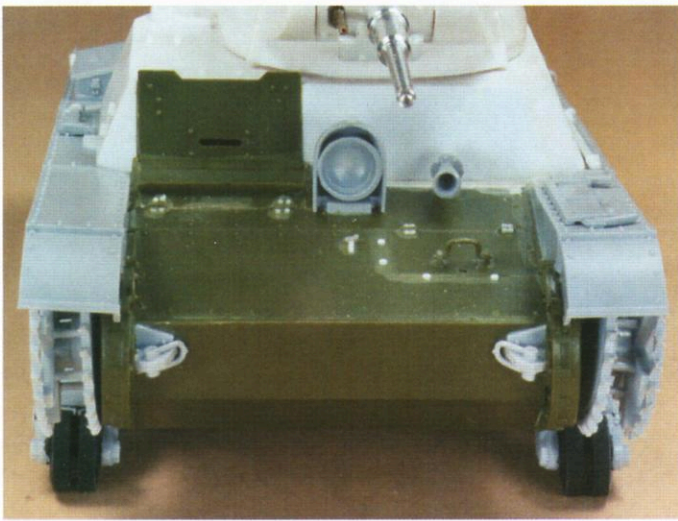


ABOVE LEFT: Right front view of the completed model. The amount of 'splicing and dicing' in making a better version of this kit is obvious.

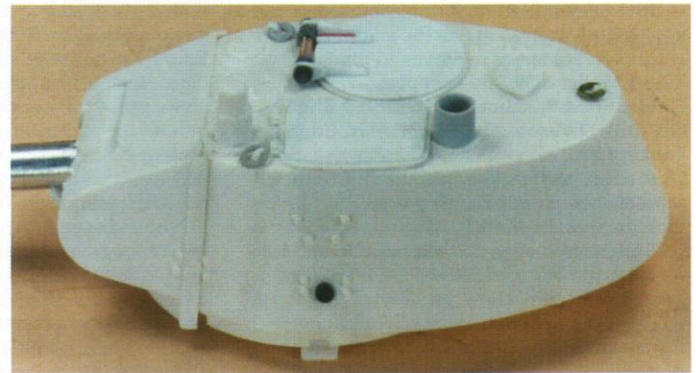
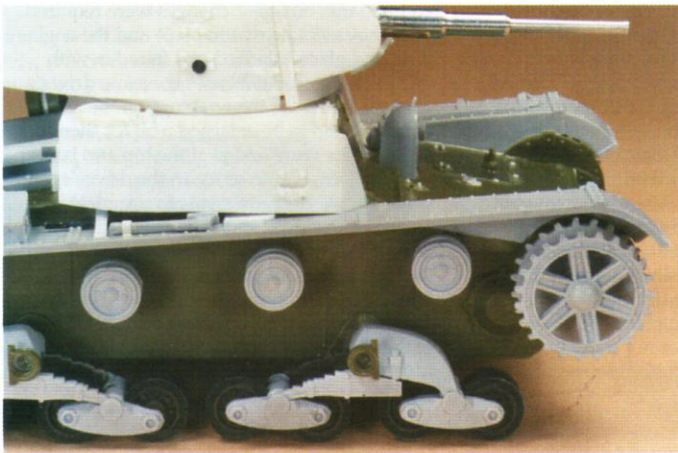
ABOVE RIGHT: Left rear view of the model. Surprisingly most items at the fender line and below were pretty much stock parts with detailing.

BELOW LEFT: Left front side of the model, showing the flush fit of the driver's visor into the upper glacis plate. BELOW RIGHT: Left rear side of the model reveals the items added to the engine deck and the tool stowage under the sponson to the left.



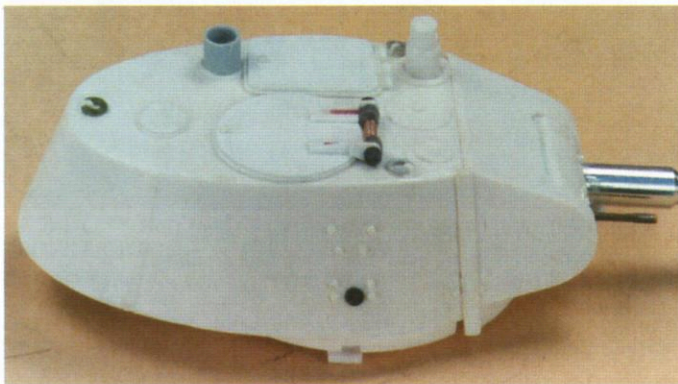


ABOVE LEFT: Head-on view of the glacis, shows that other than detailing, most of the front end is stock Zvezda. Note that this horn is parallel to the ground, not the glacis. ABOVE RIGHT: Engine deck view. As noted, this model uses the stock Zvezda 'butterfly' cover with added rivets, the hydraulic jack, three track links, a spring unit, and two sets of spare road wheels. It also has one stowage bin located as shown in the photo.



ABOVE: Right front side of the model, where the driver's side view slit goes and the rivets added to represent the mounts for its internal slide protective shield. BELOW: Right side of the turret, showing the new loader's hatch and hinge assembly. The pistol ports were also under scale, so correct size ones and rivets were added to the sides of the turret.

ABOVE: Left side of the turret, has the new commander's hatch and the PT-4 periscope sight. Since the turret is a bit under scale, as can be seen things are a tight fit. BELOW: Close-up of the bottom of the mantlet and the splash/splinter guard on this model of tank, and how it fits on the lower part of the gun barrel.



were again used to close it.

Two sets of spare bogie wheels were created from Zvezda wheels, with one drilled out to simulate the axle bearing hole and the other cut off flush with the wheel bearing and a styrene disk and hex nut added to complete its top surface. The first one mounted with the same t-shaped mount made from scrap as with the earlier models. The other was mounted on a 0.030 disk of styrene and then attached to the right rear of the engine deck. A section of a spring from another Zvezda kit and three track links were added as well. Finally, a taillight mount was made from a short section of Contrail tubing with

one end plugged by Microrod and a scrap plastic mounting.

A new plenum box with cowl and mesh grille was made, and this one also received an extra square mesh rear grille from S&S extruded aluminium mesh to simulate the post-Spain, grenade/'Molotov cocktail' deflector. Unlike the previous three models I built, this version was also fitted with the post-Finland 'butterfly' armoured cover over the air intake grille, so the stock Zvezda parts could be used.

The model uses the stock Zvezda suspension. Again, the rest of the suspension is assembled as per the kit instructions with the

exception of the locking collar. I again painted the wheels before assembly and also the inaccessible parts of the suspension bogies so that there would be no 'white spots' after the model was finished. The driving sprockets need to be thinned as described previously.

The muffler is, again, used with its three clamps and brackets, with the exhaust pipe removed and replaced with a section of 0.080 Contrail tubing 'salami sliced' to provide a new pipe. Here the pipe also angles down, but is parallel to the plane of the rear hull plate.

The ends of the idler mounts were also routed out with a Dremel Minimite and a dental burr to represent the adjustment openings on each one



ABOVE LEFT: Right front view of the turret. The PT-4 periscope is a big change from the earlier models as well as an interesting addition to the turret roof. ABOVE RIGHT: The glacis area features the headlight and horn. It appears that the original artist had no good guidelines for painting the earth yellow and simply used his imagination to cover the front of the tank - no two seem to have had the same pattern.

for the tanker bar to be inserted.

The Model 1939 also carried a lighter chain three metres in length, simply held on the six rear hooks on the hull stern plate. I added it after the model was finished, but as noted it did not fully chemically blacken.

At the bow end, this tank also used the folding headlight with an armoured cover. I added both a wing nut for locking it down and a notch on top of the headlight for fastening. It also used the stock kit horn, but angled parallel to the ground.

Other than the previously noted comments on enlarging the size of the casemate, the turret decking again required no modification other than additional rivets. But the Mirage turret needed quite a bit of work to correct some of its selective compression flaws.

The turret is the standard Model 1938/1939 oval turret with a round loader's hatch and modified rectangular commander's hatch. It uses the early model welded armour mantlet frame and the late production 45mm Model 1934 tank gun with a different breech and a modified recoil mechanism. The gun mount was unstable, due to loose fit of the bearing pins, so I attached a piece of scrap to the gun 'breech' to hold the gun at 0° degrees elevation. (This was interesting, considering there is a flat wall on the front of the turret moulding that the mantlet attaches to, and, therefore, the 'breech' cannot be seen!)

I cut off the recoil mechanism cover (it is not found on this version) and filed the mantlet smooth. I then drilled out the gun barrel opening and epoxied the Jordi Rubio aluminium barrel in place. The mantlet was then assembled and attached to the front of the turret. The plentiful selection of Tamiya M60 machine guns again contributed the DT barrel. I then took an unused mantlet from one of the other kits, cut it down, and used it to create the fragment/splash deflector under the barrel with some detailing and rivets



Top view of the finished model. The whitewash cross was added for aerial recognition after the German invasion in June 1941.

added. This was attached by simply gluing a section of 0.040 strip to the back and then cementing it in place to the mantlet, rather than trying to attach it to the barrel.

The next work involved removing the commander's hatch and mounts for the loader's hatch, and making new hatches from sheet styrene to the correct size needed. Each one was made from two sections of 0.010 sheet to get the 'stepped' edges. Contrail tubing, Microrod and a Kadde HO model railroad coupler spring were used for hinge details. A Zvezda antenna feed cup and lift rings were used, but I did keep the kit's stock PT-4 periscope sight. More details were added, such as the correct size and shape flag signal port on the rear of the turret roof behind the hatches, and new pistol ports and rivets in the correct places on the sides.

Finally, once the tracks were in place, the

model was painted. First, the turret was given a coat of white paint, then the two stripes and cross were masked off and the green colours (Floquil RML 70 Dark Green and Hunter Green) applied.

While this tank was serving in Iran after the outbreak of 'The Great Patriotic War', it was marked and painted per Soviet pre-war camouflage regulations. Its unit was considered part of 'Group I' for camouflage, and as such was to use the base colour (4BO green) with dark brown (6K) and earth yellow (7K). Each unit was left to its own devices, and the number of variations in photos of the 28th Mechanized Corps vehicles show this. The regulations said that 50% of the vehicle was to be left in the base colour and the other colours used in disruptive patches to break up its outline, but these were liberally interpreted by the commanders in the field. One of the 6th Division's tank brigades used a neat scheme split more along the lines of 1/3 - 1/3 - 1/3 for the three colours. This particular tank was painted with 4BO green and later had the 6K dark brown applied over about 35% of its upper surfaces (there is no camouflage below the fender line on the sides) and then a hand-applied wavy pattern of stripes with the 7K earth yellow colour.

The dark brown used was Floquil Roof Brown, which was sprayed on with 'Silly Putty' masking over the rest of the vehicle. The earth yellow - Floquil Mud - was applied by hand to simulate the actual vehicle camouflage seen in photos.

The tracks - as with the others - were painted with Floquil Rail Tie Brown; after the wash they were dry-brushed with silver. The muffler started with a Testor's Modelmaster Leather base coat, followed by six different

Right rear view of the finished model. The over-painting of the turret identification stripes is best seen here.





coats dry-brushed in different colours after the wash was applied. The model then received a wash of mineral spirits and black oil paint, followed by dry brushing with Floquil Warsaw Pact Grey-Green.

The tools and machine gun barrel were picked out with black. The model was then shot with Future Floor Wax (a clear acrylic floor wax), overshot with Testor's Dullcoat, and then topped with Floquil Dust.

Finally, it received a PSP Models Ltd 5 mm lens in the headlight housing and an MV Lenses red railroad lens for its taillight.

Conclusion

The T-26 was a workman-like tank when the Soviets needed one, and did its best under very difficult combat conditions. But by 1941 it was hopelessly obsolete in the European theatre of operations, and poor conceptualization and mediocre training spelled its demise. Its natural successor, the T-50 light tank, was too complex, too expensive, and too close in design to the T-34 series medium tanks that took over the duties of both infantry escort tanks and cavalry fast tanks.

While this was one of the most important tanks of the 1930s and a groundbreaking concept only in the scope of its production, it is unfortunate that there is no good way to get a really first-rate model of any variant of a T-26 at this time. We can hope perhaps Trumpeter, Dragon or another company will see its way clear to do a series of state-of-the-art kits using the innovative 'slide moulding' technique.

The four models covered are somewhat basic in their overall detailing, and with the acceptance of the 2mm narrow hull somewhat compromised in accuracy, but they do present as T-26s and show the gamut of changes that the actual tanks underwent.

Acknowledgements

I am greatly indebted to Steve Zaloga for the use of the historical photos from his collection and the segments from the actual vehicle manuals of the 1930s, that appeared in Parts 1 and 2. And to Peter Brown for his tracking down the British end of the Vickers Six-Ton Mark E story in Vickers and Tank Museum records.

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BELOW LEFT: Rear view of the hull. This version also used the smaller link chain wrapped around the carrying hooks at the rear of the hull. I didn't catch the nick at the top right of the mesh over the air exhaust grille until after the model was finished, which is one problem of working with very fragile products like extruded aluminium screening. BELOW RIGHT: Left rear view of the engine deck.



SMALL SCALE SCENE

A monthly column for military vehicle modellers compiled by ROBIN BUCKLAND

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Visiting Tankfest is of course a marvellous experience. I won't cover it here, because I have done a separate piece on the whole show. However, it did get me thinking about how we cross over our interests.

Modellers can easily fall in different groups; as wargamers for whom a model may be almost incidental to the game; the detail specialist who wants to get everything perfect; those who are perfectly happy with a kit straight from the box; those who convert and those who scratch build; those who do plastic, but not resin; those who do metal (or not) and those who are happy to buy the ready made and finished models now so successful for Dragon, Forces of Valor, etc.

Seeing the real thing, there was a privately owned, fully restored *Jagdpanther* at the show, but unfortunately it went unserviceable on the day. The gossip was of a six-figure sum involved in completing this beautiful restoration. Oh, what it would be to be able to afford such a luxury.

Lurking in a yard at the Tank Museum was a rather rusting example of a BTR-60-PA 'Command'. I understand this had been captured in the Gulf War and returned as a trophy. At the time, no doubt it was proudly put on show, but as the years have gone by so the interest has faded and the vehicle now looks rather sorry for itself. I suppose I feel a pang of envy really. I would dearly love to have a real vehicle to look after and hopefully run. In the meantime I content myself with the opportunity to enjoy seeing them, and being able to take photos for reference.

I suppose in a similar way I really admire the ready made and painted models, which are now on the market. For me, personally, that includes the fine range of 1:72 scale aircraft made by Corgi, which set some tough standards to match I think.

Art Toys

In recent months we featured three releases from Art Toys, and they have received a number of orders and enquiries, particularly from the UK. However, one of the modern problems for a small business these days has struck them, and they tell me they have had a complete computer failure. As a result they have lost the e-mails and postal addresses they were due to send information/orders to. If you have contacted Art Toys recently, and have not had your order or information as requested, please contact them again and let them have your contact details. Art Toys, Ouden Dendermondse, STWG.49, B-9300 Aalst, Belgium.

ICM

The relatively unexpected is always a nice surprise and I found this in the recent 1:72 scale plastic kit releases from ICM, which Italeri are distributing. There have been a couple of 1:76 scale kits of the *SdKfz 222* before, from Fujimi and Airfix, and add to that some resin and metal models of other variants of this armoured car, now there are three neat models from ICM. They have done the *SdKfz 222* (the basic armoured car with a



ABOVE LEFT: Injection moulded plastic German *SdKfz 223* armoured car in 1:72 scale from ICM.



ABOVE RIGHT: Forces of Valor's 1:72 scale British Grant Mark I comes ready assembled and painted.

turret), the *SdKfz 223* (a smaller turret with MG armament and a frame aerial) plus the turretless *SdKfz 261* Radio Command car.

They share some common parts and are all very nicely produced, are not complex models, but go together well enough, I found. Interestingly, they also include a photo etched metal fret for the mesh covers that go on the hull tops, the turrets, or in the case of the *SdKfz 261*, replace the turrets of the other two. It does help to do part of the assembly, then paint the interiors or underneath where the etched mesh will finally cover, and then fit the mesh parts afterwards. I would rate these as the best yet for the *SdKfz 222*, and the fact they have done the other variants plus included etched parts that are ideal for this application. Look out for these in the shops now, I'd expect us to start seeing these in model competitions this year, in a variety of finishes, as they were used on all major front during the war.

Wargames South

Now, for an even smaller scale, the 1:150 scale metal wargames models from Wargames South have appeared regularly in this column over recent years, so it's nice to see their latest additions. I have five examples of new models from them, all cleanly cast in white metal, and simple enough to assemble. The singular allied item is a British Bedford QLT truck and now they have the cab and chassis, I wonder how many of the other QL variants will follow. Really intended for wargaming, these make neat little collectors' items by themselves, or are ideal for a wide area diorama.

There are four different *PzKpfw III* variants; *Ausf L*, *Ausf N*, *Ausf M* and an *Ausf M* (Late). Once again, cast in white metal they go together easily enough. The *Ausf N* is the only one with the short-barrelled 75mm gun, the remainder have the long 50mm. Equally, the *Ausf N* and the late *Ausf M* both have side skirt armour for hull and turret. They go together easily, though beware the handling of just a couple of really tiny parts, which would be easy to lose. Casting is neat and crisp, and the detail is very good. I like these smaller scale models, not so



A diminutive Bedford QLT with removable tilt, in 1:150 scale from Wargames South.

much for gaming, but the ability to model a larger scene than you could with even 1:76 scale models, unless of course you are lucky enough to have lots of space! Available from Wargames South, 1 St Giles Close, Ise Lodge, Kettering, Northants NN15 5HA.

Forces of Valor

I mentioned a couple of the new releases from Forces of Valor last month, and this time there's more! These are ready made and painted 1:72 scale models, and good value for money too. Once again, if things like this encourage youngsters in particular to get into the hobby, and make them want to make their own models, then these are good examples to work from. The Grant is one of my favourites and finished in a sand and green camouflage scheme, it is complete with commander figure in the cupola and tarpaulins stowed along both sides. It's an improvement on the old Airfix Grant for getting the size and shape of the turret right for my eye. The quality of the finishing is good, though I would expect those modellers into painting figures to want to repaint the commander figure. The second one up is the T-34-85, finished in a dark 'Russian green', and the white recognition markings of the late war period, and again complete with a commander figure in the turret. As with all this series, there are radio aerials in place, but these have a circular loop at the top to stop youngsters (or anyone else of course) from stabbing themselves on the wire used. Many modellers will simply want to snip the loops off - or replace the aerial with a different material.

The T-34-85 has come out quite well, though I have one issue with it. Full marks for trying, but they have attempted to get the roughly cast surface on the turret, and for me this is a touch overdone. The hull is smooth rolled armour plate, but the cast turret is rough all over. It's not that bad, I can live with it, but to correct it would be difficult as the whole painted finish, which I like, would be ruined. Even the smoke generators are on the back, which is still a bit uncommon in small-scale models of the T-34.

The final one of the trio is for German armour enthusiasts - the *SdKfz 251 Ausf D*, complete with *Nebelwerfer* frames and a crewman. The figure is not bad, but the anatomy is a bit out to my eye, and rather long arms detract from it a bit. The vehicle itself is finished in a sand/green/brown scheme which works well. The rockets are separate parts to drop into the frames and these need an extra strengthener added on the top, which would not be difficult, but generally looks fine. Width indicators are fitted to the front mudguards, and sitting vanes and radio aerial are there as well, each of which has a loop at the top. As ready made and painted models, these really are very good, and offer great value for money. The purist can find issue with them, but I wonder if we should. A toy company produces these and they rate highly as 'good' toys. Good enough for modellers to be happy to own them I think, but if you

want the ultimate detailed representation, then you will still be scratch building your own I suspect.

Satisfying demand is what this is all about, and the Grant is definitely one of my favourites. They offer great value, and as I have said, if we encourage youngsters to have a look at these, and later maybe tempt them into making their own kit to add something 'different' to their collection, then all well and good. The Forces of Valor range is in the shops now.

Milicast

Having seen their stand at the MAFVA Nationals at Duxford, Milicast were displaying their latest, and largest, project, a 1:76 scale LSI. (Landing Ship Infantry). I haven't had a close look, but with a hull and major parts cast in resin with gun tubs and detail fittings in etched brass. If you have the space for these large ships, then it would go well with the LSTs that Accurate Armour are also producing in this scale.

At the same time, Milicast continue to add to their Battlefield range and I remain impressed with these simplified resin models. Though aimed primarily at wargamers, there are many modellers now adding these to their collections. Major components come cast in one piece, no having to line up track units or wheels. It is just the smaller details, which are still supplied as separate parts and need careful assembly. Much simpler if you compare them to their Classic range, but not only are they moving many of the original range over to 'Battlefield' models, they are adding new subjects as well. A good example is yet another Universal Carrier variant, complete with mortar and a load of ammunition in the back. The mortar can be dismounted from the carrier, or assembled in the stowed position, or set up for firing from the front crew compartment. There is bit of flash to be removed from amidst the roadwheels, but not a lot more. Assembly is quick and simple and the end result, after a coat of primer, is ready for painting. Regular issue of new releases keeps Milicast with a list to watch out for. Milicast are at 9 Rannoch Street, Battlefield, Glasgow, G44 4DT, Scotland.

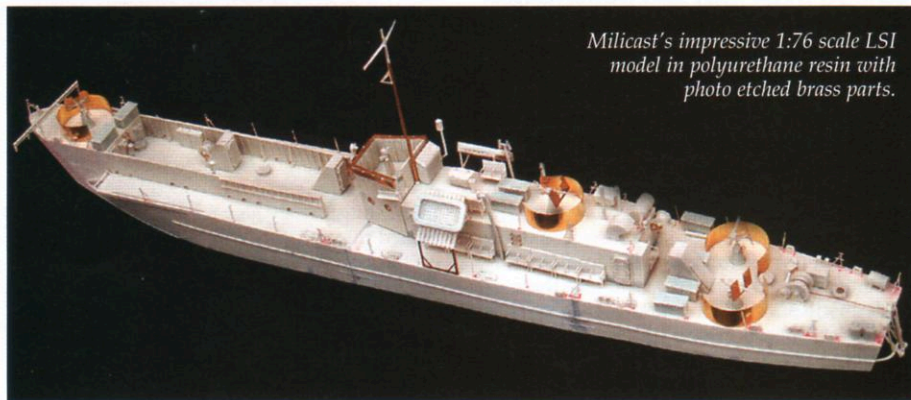
Dragon

There seems to be no stopping Dragon producing injection-moulded plastic kits in the popular scales; they just keeps churning out the new releases. I can remember a lot of modellers asking, 'If they can release such and such a vehicle, why don't they do this 'xyz' other variant?' Well, this seems to be exactly what Dragon is doing and it equally seems to be working well. As I write this, the first 1:72 scale Shermans are coming on to the market, though I have yet to examine one closely. The Hummer is going through it, and the latest release on that chassis has the 'Gun Truck', which allows either the open back utility truck or a gun truck, complete with armoured panels. The chassis remains common throughout, but new parts for the smaller tilt over the cab, open back, new sides and of course the pintle-mounted gun. Side armour can be either plastic parts or etched brass, as both alternatives are provided. I am a real fan of their Hummer series, even if the tyres remain a bit awkward to get over the rims.

Now the Hanomag series is going through it, as both the 1:72 scale *SdKfz 251 Ausf C* and *Ausf D* are now on sale. The detail included with these, especially within the fighting compartment is the most detailed I can



Line up of 1:76 scale Crusader tanks including the AA variant from Milicast.



Milicast's impressive 1:76 scale LSI model in polyurethane resin with photo etched brass parts.



Dragon's 1:72 scale plastic kit of the German *SdKfz 251* half-track.

remember seeing in a small-scale kit. I found the hull top on the *Ausf C* a little awkward to get fitted correctly, along with the rear door assembly, but it worked in the end, even if a little filler will help. There is no doubt in my mind, when you see both the old *Esci Ausf C* alongside the new Dragon *Ausf C*, then manufacturing techniques have come a long way in recent years, and these Dragon kits really are becoming what modellers have only dreamed of for many years.

Just moving down a notch, to 1:144 scale, I have also now seen the series of modern Gulf War subjects that Dragon have done; how about M113, Bradley, Abrams, M109, MLRS, Challenger 2 and AS90? In a fairly soft grey plastic, these include some neatly done storage items that replicate the well-laden look we came to know of both US and British vehicles on the news footage from the Middle East during 2003. They benefit from a coat of primer before painting, but they then make up rather well, with plenty of marking options (provided the vehicles are painted sand of course) of equipment used during OIF (*Operation Iraqi Freedom*). These have been in the shops for a little time now.

Scarlet & Gold

A little more now from the new 30mm range by Scarlet & Gold, which I first mentioned last time. One other vehicle they have already produced is the Scimitar. It is nicely done, and is available in kit form, which I would expect modellers to go for, as well as made and painted. As the paint finish is fairly basic colour, many modellers would want to do more with it I believe. The basic vehicle

looks good though, and would repay the work you put in to upgrade the colours. At the same time, there are some figures to go with this series as well. You may remember that I said this new range is geared towards the old Phoenix 30mm range, hence the size. Once again the figures come ready made and painted, though in what I think I'd describe as a 'Toy Soldier' style. Once again I'd guess that modellers are likely to repaint these to taste. Available direct from Scarlet & Gold, Lansdowne, Cavendish Road, Church Crookham, Fleet, Hampshire GU52 6PZ.

Revell

Although not as prolific as Dragon, Revell continue to steadily release a series of fine 1:72 scale AFV models, along with re-releasing the old 1:76 scale Matchbox kits now under the Revell label, and at a lower price point than their newly produced products. Recent re-releases, though not now in the multi-coloured plastic sprues, and with new printed sets of transfers (decals for those who need the translation) it is a pleasure to see the Morris, 17pdr and jeep back on the market. This was, I suspect, one of the most wanted kits over the years, and despite the age of the original is still among my own favourites. The same is true of the Char B and the FT17 along with the Churchill AVRE and SFB Bridge. The detail on the Churchill, including the turret, was rather soft in detail for me, and despite being among their last releases, was not one of Matchbox's best I always thought. Still, there are some update and conversion sets available through Matador Models, so if you need to upgrade what is in the box, check out the Matador Models range.

As for really 'new' models, the T-72 has now gone on sale. I still prefer the solid, link and length style of track to the Dragon DS Styrene, but that is just personal taste. I've heard of a few issues about the shape of the turret not being quite right, but it looks good enough for me. The one thing that does need doing is to assemble, paint and finish the running gear before you fit the side mud-shields. What you get is a very nice model indeed. Certainly one I'll want more of, as the T-72 has seen such widespread use over the years.



Milicast's 1:76 scale Sherman Duplex Drive.



Universal Mortar Carrier from Milicast is cast in polyurethane resin in 1:76 scale.



Coming from AB Figures - German 1:76 scale feldpolizei foot and motorcyclist figures cast in white metal.

AB Figures

For figures to go with trucks and tanks, AB Figures are hard to beat. Just recently they have done sets of half figures or just head and shoulders to fit into AFV hatches. With German, US and British sets already available, these are in my classification of 'must have' if you are into small scale AFVs.

We've also mentioned their recent series of artillery pieces, but the first one of their own full vehicle models is the British Universal Carrier and they are doing this in a number of the different variants, by using alternate parts in each kit. I have an example of the basic carrier and very good it is. Cast in white metal it requires assembly, but overall I think this is very well produced and, of course, it is intended to have crew figures placed within it. I still prefer solder for assembly, but for this and especially the smaller parts, super glue is just as good. AB Figures are at Ffos Yr Ewig, Llanfynydd, Carmarthen, Wales SA32 7DD. Tel: 01558 668771. www.abfigures.co.uk

Des Resin

Regular readers will know I am a long time fan of what is a fine range of large-scale resin models produced in France. Recently I mentioned the 'loads' of boxes to go with their US 5-ton and 10-ton trailers, but now let's talk about a full 1:35 scale kit, for the French Laffly Artillery Tractor S35T. This six-wheeled gun tractor is cast in polyurethane

resin, and packed in a stout cardboard box wherein all the parts are packed in sections, in small poly bags. You instantly see how good the detail is, and know you have a good assembly task on your hands. As ever, the instructions are in dual language, English and French and a fully illustrated and numbered parts diagram help a lot, along with pictures of the model being assembled and annotated with part numbers. This usually takes a bit of detective work, flitting from one illustration to another just to confirm the exact placement of the parts, but the actual fit of parts is, as always, excellent. I have not finished building this one yet, but it is under way, and I hope to bring you a full build up feature in the not too distant future. Meanwhile, contact DES Resin at 27 rue des Hauts de Bonne Eau, 94500 Champigny sur Marne, France.

MMS

Now they have produced the Commer truck front end, MMS have added two more variants to their ranges; one to the Classic range and another to the 'restricted' series. The two are the Commer 3-ton GS truck as well as the smaller 30 cwt version. Cast in white metal and both with full tilts, these go together well. As their advertising says, and for me, MMS still 'set the standards' for the quality of their metal casting. The detail of the masters is excellent, and they are broken down into a sensible construction sequence.

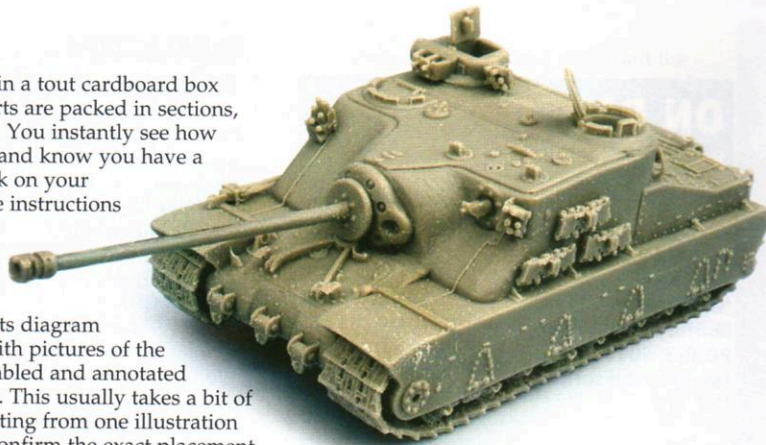
Assembly instructions are provided, along with a brief history of the vehicle. The hard top cab has a good fit of parts, and the end result means that you can have another couple of the many types of truck used by British and Allied forces during WW2. MMS, PO Box 626, Folkestone, Kent CT20 9AF.

SHQ

SHQ is a good range of Second World War figures we have seen regularly over the years, along with an ever growing range of cast white metal vehicles. Recently there has been some Russians and more Italians due by the time you read this. I have the little BA-64 armoured car with its main body as a one-piece metal casting, but turret, wheels, axles and so on are the parts you need to fit to it. There is a little cleaning up to do, simply removing a small amount of flash and cleaning up the casting feed points, needing nothing more than a craft knife to do so. Other Russian items recently also include the GAZ jeep that is again a relatively simple assembly task. SHQ range is available direct from them at SHQ, The Granary, Burley Lane, Ash, Basingstoke RG25 3AG.

Cromwell Models

The British Tortoise is one of the latest releases from Cromwell Models in their 'Combat Ready' series and the model was originally in their standard series. This was brought to mind when I visited Bovington for Tankfest where the Tortoise is one of the larger SP guns on show at the Tank Museum. The Cromwell 1:76 scale model is cast in polyurethane resin and nicely detailed, with the smaller parts now fixed in place leaving only a few remaining and separate parts to be super-glued on. I recall seeing some photos of a Tortoise being hauled by a combina-



Cromwell Models' 1:76 scale kit of the British A39 'Tortoise' - virtually a self-propelled 32pdr (3.7in) Gun. There is an example of the 'Tortoise' on display at Bovington Tank Museum.

tion of 'Diamond T' tractor units, which would make for a mighty impressive model diorama even in this scale. Tortoise is actually just one amidst a number of new 'Combat Ready' kits from Cromwell Models, but more about these next time.

Ace

Among the most prolific plastic kit producers of recent times is the Russian company, Ace. Their limited run, injection-moulding technology does leave us with some work to do in preparing the plastic parts for assembly, but they are able to get a lot of different models into production. The moulding is not up to the standards set by Revell, Dragon or Italeri, but Ace's choice of subject matter remains among the most original. After starting with modern Russian equipment, they turned their hands to WW2 German Artillery, which we have featured here over the last few months, but now for something completely different again, the modern French armoured car, the AML 90. I am about to start building it, so can't comment on the assembly yet, but the detail looking at the parts is really well done. Being a wheeled vehicle, it won't require the time and effort needed on some of their AFVs that have full track and running gear. The Panhard has been widely used over the years and an example of one sits close alongside the Tortoise at the Bovington Tank Museum. As always, Ace provide about half a dozen different options for markings and camouflage schemes. Pol Models, at 64 Cumberland Road, London, W3 6EY. Tel: 020 8992 3822, kindly provided my example.

Publications

Issue 2 of the re-vamped French magazine, *Minitracks* is now out. A quarterly publication, this is devoted to small-scale armour models and reference articles. The standard of the models they feature, usually set in dioramas, is always good and this issue is no exception. One is a Finnish *StuG III* along with an ISU-152. Beautifully painted and presented, an unusual choice of subject still. Another tackles sculpting small-scale figures and then one of the best-finished models of the Esci T-62 I can recall seeing. I particularly liked an Esci Churchill, finished in North African guise, then a background article and model featuring the Chevrolet 1937 Steelwork (looks like a BA-6). *Minitracks* is available from Editions du Barbotin, 25 rue des Jardins, 91160 Ballainvilliers, France. ■

ON PARADE

Books and videos reviewed

● Books and videos for review should be sent to:

The Editor
'On Parade'
Military Modelling
PO Box 6017
Leighton Buzzard
LU7 2FA

Armor Camouflage & Markings of the 2nd New Zealand Division - Part 1: Greece & North Africa by Jeffrey Plowman. Armor Color Gallery #1. Model Centrum Progress
www.modelbooks.republika.pl
ISBN 83-920254-8-2. Price £13.95 (in UK from Pol Models)

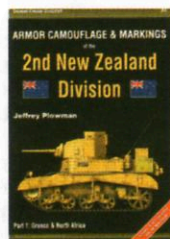
Jeff Plowman is well known for his Kiwi Armour books on the AFVs of his native New Zealand and the Armor Photo Gallery series has been around for some time. This collaboration between the two marks the first in a new series. It deals with an often, overlooked subject, armoured vehicles used by an infantry division.

At the beginning of WW2, British and Commonwealth divisions, which used a similar organization, had a Divisional Cavalry Regiment equipped with light tanks and carriers. Their role was later taken over by the Reconnaissance Corps with the tanks replaced by armoured cars. In addition the infantry battalions had carriers of various types, while the artillery had armoured observation post vehicles in the form of specially equipped carriers and later tanks.

All of these are covered here from the viewpoint of 2nd New Zealand Division. The book is in two sections; the first is a series of contemporary black and white photos from several sources with many coming from private collections. All are clear and well printed with captions giving a lot of information such as details of markings and colour schemes, which is very useful. Each type of unit has a separate chapter with a brief introduction, starting with the Divisional Cavalry Regiment with a range of Light Tanks from old Mark II and III to Mark VI in various forms, including AA versions plus carriers; then Marmon-Herrington armoured cars - properly called South African Reconnaissance Cars - then early Stuarts including the Divisional Commander's command vehicle. Then come different artillery types, infantry carriers in various forms and colour schemes including some unusual armament. The final section covers tanks as infantry battalions converted to armour, training on a range of old vehicles, then the Shermans they were to operate in action.

The second section has several colour drawings, front and/or side views printed to 1:35 scale, which is an extra bonus for modellers. These are based on the photos and show all the main types in a variety of schemes with markings not visible in the main view shown as separate details.

One small error has crept in; the white-red-white recognition marking adopted for Operation Crusader in late 1941 is misidentified as an armour flash as it has so often in the past. This is a minor point, but modellers basing a



On DVD and VIDEO

British Tanks at War (Imperial War Museum Collection. The Official Collection) DD Home Entertainment, Unit 1, Pool Bank Business Park, High Street, Tarvin, Chester CH3 8JH.
www.ddhe.co.uk PAL 4:3 B&W, running time 1hour 30mins approx. Price: £15.99 DVD. £14.99 VHS.

British Tanks at War has five different official films produced during the Second World War, between 1941-42, so it's all early stuff on show. These films are 'children of their time' in that production techniques and cinematographic quality are not on a par with modern methods. 'Tank Battle' is the first film that was made by the Army Film Unit in 1942 and features a large-scale exercise at divisional level arranged as a mock battle between the 'goodies' (the British) and the 'baddies' (the Germans.) Theatricals are allowed to creep in, but basically it is a staged battle between Valentines (the opposition have 'German crosses') with the appearance of a few Cruisers, light tanks and other vehicles appropriate for that period. What it does show is invaluable footage of tanks crews and equipment you won't find as 'stills' in official collections. It does highlight how the tactics of the time worked from reconnoitre to battle plan. You'll find yourself 'freeze-framing' a lot to take in the visual feast of lots of Valentine tanks in operation.

The second film, 'Ten Tips For Tackling Tanks' was produced by the DAK (not *Deutsches Afrika Korps* but Directorate of Army Kinematography!) in 1941 to show British infantry (and others) on how to knock out tanks with the weapons available at the time - unfortunately not on German tanks, but British 'stand ins' showing the No.73 Anti Tank Grenade, Incendiary bombs, No.75 'Hawkins Grenade' (or mine), Boys Anti Tank Rifle, etc. All rather puny countermeasures for armour, as was soon appreciated.

'Spot That Tank!' was a DAK film made in 1942 and uses animated graphics of no particular type of tank, but a general concoction to point out the salient points of armoured vehicles. The film gives British nomenclature of the



time for describing tank parts, which in fact, we still use today. For its time it would have been a very informative slice of visual literature to the uninitiated. 'Tank Patrol' was made in 1941 (in Britain) by the Ministry of Information, where a Crusader Mark I (painted overall sand) with a crew drawn from the four corners of the 'Commonwealth' has been damaged and the front MG turret gunner wounded - spot the late actor Bill

Owen (Compo in the BBC's *The Last of the Summer Wine* and billed here as Bill Rowbotham) in the role, complete with 1940's cultured British accent with slight southern twang and looking very young.)

The crew have to steal petrol from some nearby Italians (the Sergeant does it single-handed armed only with a revolver) and then do battle with them (disguised British lorries and armoured cars and lots of smoke from explosions) in the final frames in a sandy remote British local to represent the Western Desert. The dialogue will be very strange to modern ears, but it was 'the talk of the time' in 1940's wartime Britain. A 'real Italian' played the Italian soldier.

Finally, 'Birth of a Tank' was made in 1942 by the Ministry of Information and shows the manufacturing methods of that time to produce Valentines tanks. Detailed coverage of the Vickers Slow Motion Suspension is given and how small parts were produced in tiny workshops and garages for assembly in the larger plants. ('Detroit and Shermans continuously rolling off the production line 'it aint'.) It is, however, a stark illustration of a Britain hard pressed to produce tanks and as is well known, some of these sorely needed Valentines were given by a hard pressed Britain to the equally hard pressed Russians, who were already turning out superior T-34 tanks in their hundreds in 1942. You may well ask what was the point of sending inferior Valentines (and later, US designs) to the Russians? However, I digress. This is a most enjoyable DVD literally oozing Second World War period flavour - British style!

Ken Jones

model on a photo or colour plate will have the correct markings despite the inaccurate details.

Tables list all the arm-of-service colours and numbers for the Division and the New Zealand Base Training Unit at different times. There is a whole page showing special markings for artillery units in colour and organization tables using vehicle silhouettes including relevant tactical signs for the Divisional Cavalry Regiment in Greece and a typical artillery regiment.

Much of the material included here will be new to readers, certainly those outside, and maybe many in New Zealand. As with the Kiwi Armour series it is well researched and well presented in the publisher's style, providing a good mix of photos, text and colour plates to give a detailed picture of a neglected subject.
Peter Brown

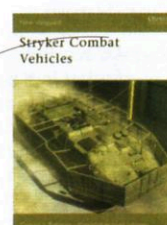
Stryker Combat Vehicles, Gordon L. Rottman, illustrated by Hugh Johnson. Osprey Publishing, Midland House, West Way, Botley, Oxford OX2 0PH.
ISBN 1-84176-930-4. Price £9.50

After many years of making little use of wheeled armoured fighting vehicles, the US Army now fields the Stryker. Coming into service in 2002 it was designed to equip a force which could be sent to a trouble spot by air in a

few days, instead of the long period an existing force using tanks and tracked infantry vehicles would need. These new vehicles are based on the MOWAG Piranha, basically the Piranha III series, which bears only superficial similarities to the earlier series vehicles adopted by the US Marine Corps for its LAV requirement.

Wheeled vehicles offer several advantages over tracked such as lower fuel consumption and the fact that they are 'not tanks' for operations other than war, but they also have several disadvantages in terms of mobility and size. In any given situation, one or other type may be better, though neither is ideal on all occasions. Stryker has attracted considerable controversy and criticism, some well founded and some not, but it is in service and will be around for some years yet and has seen and is seeing action in Iraq.

Its development, along with its problems, is covered well here in Osprey New Vanguard 121, following the usual Osprey format of concise text alongside black and white photos and colour plates. As with most infantry vehicles there are several



Stuart Asquith's round up of some recent releases from Osprey. Take a look at Osprey on line at

www.ospreypublishing.com All Osprey titles are available from Osprey Direct, PO Box 140, Wellingborough, Northamptonshire NN8 2FA. Tel: 01933 443863. Fax: 01933 443849. info@ospreydirect.co.uk

Britain's Secret War: The Indonesian Confrontation 1962-66 (Men-at-Arms 431), Will Fowler. ISBN 1-84603-048-X. Price £9.50. The 'Confrontation' between Malaysia and Indonesia in Borneo - the war against Indonesian raids across a 900-mile border - eventually involved nearly 20,000 British and Commonwealth troops, yet little was reported at the time. This 'secret war' saw the perfection of SAS jungle tactics and secret missions deep inside enemy territory. This book reveals the experiences of the soldiers who survived and operated in some of the world's most difficult jungle terrain. *Polish Winged Hussar 1576-1775* (Warrior 94), Richard Brzezinski. ISBN 1-84176-650-X. Price £11.50.

The Polish hussar was surely one of the most spectacular soldiers of all time. Armed with the lance, their most dramatic feature was the wings, worn either on the rider's back or on the saddle - the purpose of these has been hotly debated. This title takes a look at the origins and development of the Polish

'winged' hussars and provides a view on the training, tactics, appearance and experience of these striking troops.

No.10 (Inter-Allied) Commando 1942-45 (Elite 142), Nick van der Bijl. ISBN 1841769991. Price £11.50.

The largest, but least known, of all Britain's war time Commando units, No.10 (Inter-Allied) was recruited from volunteers from many nations who had fled to Britain - Belgians, Dutch, French, Norwegians and Poles as well as a small number of Austrian and German refugees. Detailing the wartime exploits of these courageous troops, this book gives an insight into a fascinating unit that has often been overlooked.

Finland at War 1939-45 (Elite 141) by Philip Jowett. ISBN 1-84176-969-X. Price £11.50. In the face of Russian invasion in 1939-40 (The Winter War) and again in 1941-1944 (The Continuation War), the Finnish forces amazed the world by their effective resistance. Finland was never occupied by the Red Army and retained its independence. This book explains the organization, uniforms, equipment and tactics of Finland's wartime defenders.

Gibraltar 1779-83: The Great Siege (Campaign 172), René Chartrand. ISBN 1-84176-977-0. Price £13.99.

After Spain declared war on Great Britain in 1779, Gibraltar was besieged by land and sea for four years. The centrepiece of the siege

was the assault by battering ships and the author reveals how these were countered by the ingenuity of British engineers. In this account of the siege he examines the Franco-Spanish forces as well as the personalities and plans that would ultimately contribute to a British victory.

Fortifications of the Incas 1200-1531 (Fortress 47), H.W. & J.E. Kaufmann. ISBN 1-84176-939-8. Price £11.50.

The greatest period of Inca expansion occurred between 1471 and 1527. From their mountain stronghold, the Incas subjugated the surrounding kingdoms and territories, absorbing their civilizations and their peoples. They relied on fortified strongholds, an extensive system of roads and bridges and obligatory military service to control local populations. This book looks at the development of Inca fortification techniques and examines how they came to be over-run by the Spanish conquistadors.

US Marine in Iraq: Operation Iraqi Freedom 2003 (Warrior 106), Richard Lowry. ISBN 1-84176-982-7. Price £11.50.

Operation Iraqi Freedom began in March 2003; thousands of US Marines were deployed into Iraq in order to topple the dictatorship and liberate the Iraqi people. This book looks at the experience of ordinary Marines who fought in the front line of the conflict, their enlistment, training and life in the Iraqi desert.

supporting types to give a family of 10 versions. The basic infantry carrier is described in some detail with the differences between the other types to a lesser extent. Each is usually known by initials, mostly TLAs - Three Letter Acronyms - but some only have two or two plus a hyphenated third with some having popular, but not correct full-word versions, so read the text closely. Most vehicles in the series have been produced and introduced, though the MGS with its 105mm gun is only due to be fielded in 2007 and that date could yet 'slip'. This highlights a drawback to any book on a vehicle that is in service and especially a new one, that what is correct when the book was finalized could become wrong as time goes on.

As Strykers are deployed to Iraq there is a chapter on their use there. Although short it suggests that those who looked for faults may not have been entirely right. Vehicles there carry extra external slat armour in the form of a cage which offers extra protection from RPGs and the comparison between damage to them and other armoured vehicles suggests that they have their drawbacks, but generally do the job.

Photos show the variants from different angles including some interior shots; the colour plates include the usual cutaway with different features highlighted, two general views of the basic Infantry Combat Vehicle in normal and slat-armoured form, and one or two view 'plan' paintings of variants. All are in plain green and without unit markings, though the usual markings applied are described in the photo captions and as with most modern US vehicles are pretty plain.

With these vehicles currently in action and set to be in service for several years, this book will be a welcome addition to anyone into modern American armour. There are rumours of a Stryker kit in the pipeline from Trumpeter, as and when (or if) one (or more) appears, this will be the most readily available book on the subject.

Peter Brown

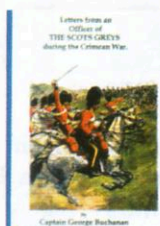
Letters From an Officer of The Scots Greys During The Crimean War by Captain George Buchanan. D.P.&G., PO Box 186, Doncaster, South Yorks DN4 0HN. ISBN 1-905265-60-3. Price £7 + 99p p&p paperback

This is a facsimile reprint of a book first published in 1866 by Rivingtons of Pall Mall as an edited selection of letters written by Captain George Buchanan of the Royal Scots Greys to his mother while he was on service in the Crimea 1854-55. D.P.&G. are donating the profits from the sale of the book to the Royal Scots Dragoon Guards Museum Appeal. There are two editions - one has soft covers and a hardback version is available at £17 + £1.75 p&p.

The book features 22 of the letters Captain George Buchanan wrote to his mother covering the period when his Regiment left Island Bridge Barracks in Dublin on 7th July 1854 for the Crimea, on a steamer via Malta, to his first letter written after months of sickness from 'Palace Hospital' at Scutari on 27th August 1855, prior to being sent home. Contemporary black and white illustrations and line drawings, along with a map, make up the illustrative content and serve to break up the continuous text.

The majority of the letters were written in the style of the time, from the British camp at Balaklava, and Captain Buchanan wrote with considerable and often mixed feelings about what was happening around him, beginning with the miserable deaths of many Allied soldiers from Cholera in an overseas campaign where disease was rife.

He talks about being moved into Kulalie Barracks near Constantinople on the outward journey, which were in a terrible run down state, rife with lice and fleas and which, he said, infested the white trousers he was wearing after simply looking inside.



The letters give an informative account of what it was like for the Victorian soldier on campaign in the Crimea; the cold, the heat, bad food and conditions; his disdain for the Turks and the Russian Cossack cavalry that faced them. His appreciation of the British and French soldiers, who were in the Allied siege of Sevastopol, comes through plainly in his letters. He makes light of the actions he fought in, as would most sons to their mothers, but he dwells more on the people and the hard conditions and the day-to-day life that provides a valuable insight into 19th century soldiering.

He writes in disparaging terms about everything from mistakes and 'fops on the staff' and remarks 'very loudly and clearly' about the injustices (many could be hearsay, not true or embellished when passed from officer to officer) that virtually ruined the British army in the Crimea without any help from the Russians they faced.

I didn't know about Captain Buchanan's letters home until the book arrived from D.P.&G., but when I first opened it I found it very difficult to put down. Like me, you may find yourself reading 'between the lines' trying to put yourself in the writer's position to better understand his feelings. I felt a little sad at the end where Captain Buchanan's death in London in the November of 1863, (he'd left the Army in March of that year) was 'dismissed' and the loose ends tied up by the original book's editor in the Addenda as, 'meeting with an accident from which he never really recovered.' Perhaps I expected too much.

I really felt for Captain George Buchanan, late of the Royal Scots Greys, reading about him in his letters home, going literally through hell - his last letter telling his mother he's coming home... And then dying a few months after leaving the Army because of 'an accident.'

It is a good read, and moving too. The profits from the book's sale will go to a worthy cause and I thoroughly recommend both.

Ken Jones



The 1882 Nile Campaign

**Bob Marrion and Stuart Asquith continue their series of articles on Sir Garnet Wolseley's campaign in Egypt.
Part 3: The British and Egyptian armies**



TOP: Egyptian infantry encamped at Kaft-el-Dovor.
ABOVE: Sailors of the Naval Brigade preparing to skirmish ahead of the armoured train.

The 1882 Nile Campaign was the first to be fought by the British Army following the sweeping reforms by Edward Cardwell, Secretary of State for War 1869-74 that included the linking of two formerly independent, but geographically close, single line infantry battalions into two-battalion regiments. It is, perhaps worth noting, that this did not apply to the first 25 line infantry regiments, which already had two battalions.

The new regiments were given geographical names and use of their former numbers ceased, changes that were not welcomed by the Army as a whole; treasured regimental numbers had gone, there were new and unfamiliar regimental names, new badges and shoulder titles, and not all the pairings were happy ones.

British infantry battalions were organized into eight companies, each with three officers and around 118 other ranks, totalling just over 1,000 per battalion. This figure varied between regiments, with Foot Guard and Highland regiments often being stronger. Mounted infantry companies mustered five officers and 121 other ranks.

Cavalry regiments had four squadrons each of five officers and 120 men, a total strength of around 650. The Household Cavalry in Egypt consisted of a squadron from each of the three regiments - 24 officers and 452 other ranks in total, while the two, dragoon guard regiments each had 31 officers and 574 other ranks. Indian cavalry units each had eight officers and 500 troopers.

A Royal Artillery (RA) field battery of six guns needed 200 men, 158 horses and 10 wag-

ons. A Royal Horse Artillery (RHA) battery required seven officers and 175 other ranks, 183 horses and 10 wagons. A mountain battery would also have six guns, five officers, 279 other ranks, 10 artificers, 13 horses, 133 ordnance mules and 63 baggage mules.

Five companies of Royal Engineers (RE) were involved in the Nile Campaign, plus 'A' and 'T' Companies, Madras (Queen's Own) Sappers and Miners. The force included a Field Park, Field Companies, 'A' (Pontoon) Troop and 'C' (Telegraph) Troop. The latter (six officers and 180 other ranks) was equipped with six wire carts and 64 horses. There seems to have been no shortage of wire and apparently the telegraph system would work over a distance of some 250 miles. The 8th, 17th and 18th Companies' Railway Staff were supplied with five engines, five brake vans, 100 goods vans, five breakdown vans and 10 miles of steel rail were sent from England.

British Army Uniforms and Equipment

During the Nile Campaign, most of the British infantry wore a plain undress, single-breasted, unlined, five-button red serge frock with slightly round-fronted skirts. This was not the dress tunic with collar and plain round 'jam pot' cuffs (pointed for officers) showing the national facings; blue for all Royal regiments, white for English and Welsh, yellow for Scottish and green for Irish, but a simplified version.

This frock featured plain, red cuffs and shoulder straps without piping, and a stand up collar that could sometimes be in the appropriate colour as noted above. There were two buttons in the waist at the rear. The front of the frock was piped white as was its



A trooper of The Royal Horse Guards, Egypt 1882.

bottom edge and the bottom of the collar.

Officers wore the unlined India pattern frock which had slight differences from regiment to regiment; some had a facing colour collar, others were plain scarlet. Shoulder straps were edged with gold cord and the cuffs were decorated with a simple gold trefoil or Austrian knot. Many had a slit breast pocket on the left, also edged with gold cord. Trousers were dark blue with a thin red piping down the outside of each leg. Ankle gaiters and boots were black.

Exceptions to this were the Seaforth Highlanders who wore khaki and the King's Royal Rifle Corps who wore a dark 'Rifle Green' (virtually black) uniform with a red collar. The cuffs were the colour of the frock decorated with a red trefoil. The shoulder straps were piped red with the battalion number in red. Equipment was black leather.

The 1877 pattern white cork sun helmet issued to all troops on Foreign Service was worn, often with a linen cloth, or pagri, tied around the bottom of the helmet crown. This could be left white, stained or coloured. The chin chain was made from interlocking brass rings on a white leather backing. The helmet was often stained with issued 'Raw Umber' - a brown colouring material - or probably locally available substitutes such as tea. All ranks were also issued with smoked glass anti-glare goggles and green anti-fly veils.

The troops arriving from India, British and Indian alike, wore khaki uniforms with puttees. The Indian Contingent consisted of 200



A map of the Nile Delta showing the sites of various actions and strategic points during the 1882 campaign.

officers, 7,200 men, 7,500 'followers' and 7,300 horses, mules and ponies.

The frocks of Highland regiments were cut similarly to their doublets, but with simplified gauntlet-shaped cuffs, ornamented with brass buttons and white tape loops. The regiments wore their kilts of the appropriate tartan, with a sporran, and dice hose, garter tabs and white spats.

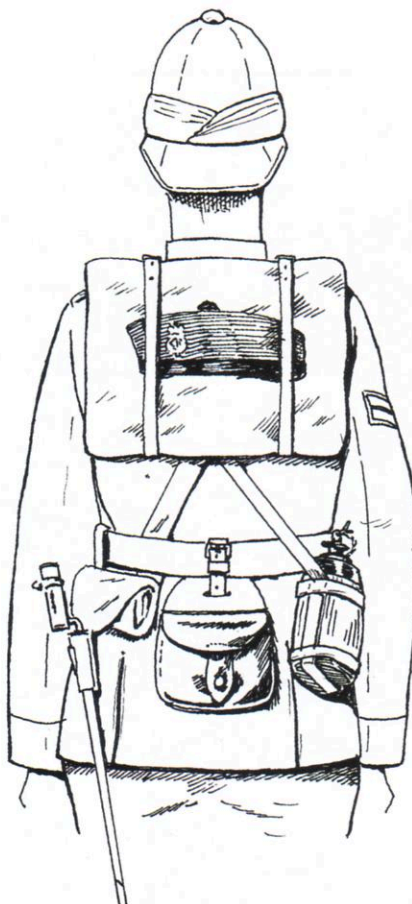
The Highland Light Infantry wore a similar, less ornate frock as the other Highland regiments, but with Mackenzie tartan trews tucked into black ankle gaiters.

The infantry were equipped with the 1871 or 1873 valise pattern equipment, although the valise itself was not carried; it rarely was on active service. An extra ammunition pouch of black leather was often hung from the rear of the waistbelt. The issue 1875 Oliver pattern water bottle was carried on a strap over the left shoulder, the haversack or ration bag was on the left hip with a strap over the right shoulder. Rifle slings were white or stained. Officers' pistol holsters were brown leather.

The mounted infantry wore their regimental undress frock - sometimes with a coloured collar - white or stained helmet, a waistbelt, cord breeches, puttees or canvas gaiters and boots. They carried infantry pouches plus, over the left shoulder, the newly introduced brown leather mounted infantry pattern bandolier holding 100 rounds.

The cavalry generally wore home service dress, but as with the infantry, the undress frock replaced the tunic. Some units retained black knee boots, but others (including the Household Cavalry and 7th Dragoon Guards) adopted dark blue puttees.

The three squadrons of the Household Cavalry wore stained Foreign Service helmets, red (Life Guards) or blue (Horse Guards) serge frocks and blue home service breeches. Those of the Life Guards had a double red stripe and thin red piping between the stripes, those of the Horse Guards a single broad red stripe. The serge frocks may have had collars of the facing colour - blue for the Life Guards and a wholly blue frock for the Royal Horse Guards.



Side and rear views of the 1871 Valise Equipment, Service Marching Order without valise, as would have been worn by the troops in Egypt.

The 4th Dragoon Guards wore a white helmet with a brass chin chain and spike, a scarlet frock with a plain blue collar and round cuffs and yellow shoulder cords. The blue breeches had a single yellow stripe; the equipment was white with a black cartridge pouch and black boots.

The 7th Dragoon Guards also wore the white helmet with a brass chin chain and spike; a scarlet serge frock with a black collar and pointed black cuffs piped yellow. The rest of the uniform/equipment was as for 4th Dragoon Guards, apart from dark blue puttees in place of boots.

The 19th Hussars wore the white helmet with brass fittings, a simple, plain dark blue jacket (for all ranks) fastened with five brass buttons and with plain blue shoulder straps, blue breeches with a double yellow stripe and black boots. As mentioned, some or all of the Indian cavalry regiments may have worn khaki uniforms.

The Royal Artillery wore a white helmet, a dark blue frock fastened by five brass buttons and dark blue trousers with red piping. The frock collar was red with yellow piping along the bottom. The blue shoulder straps were piped yellow and the cuff lace was ornamented with a trefoil of yellow cord. Sergeants and above had the yellow cord replaced by gold tracing braid. In 1880 brass grenades were placed on the collar. All equipment straps were white.

The Royal Engineers wore white helmets with cloths and red frocks with dark blue collars and cuffs, the latter with yellow piping. The dark blue trousers had a red stripe and black or canvas calf-length gaiters were worn.

The Post Office Corps was formed for military service in Egypt by Royal Warrant in August 1882. The Corps was recruited from members of the 24th Middlesex Rifle Volunteer Corps, a formation recruited from General Post Office personnel. The establishment was one army postmaster and assistant, four sergeants, four corporals and 30 privates.

The Corps wore a dark blue jacket and trousers with a mid to dark green collar and pointed cuffs. Black leather equipment, ankle gaiters and boots were worn, together with a white sun helmet featuring a mid to dark green helmet cloth.

British Army Weapons

The standard British infantry weapon was the .45-inch Martini-Henry Mark III rifle. Destined to be the last general issue weapon to use black powder, the rifle was single shot breech loader with an effective range of about 800 yards, although it was sighted for 1,450 yards. The weapon had a maximum rate of fire of 23 unaimed shots per minute, but 8-12 aimed rounds was a more likely figure in action.

Indian infantrymen were armed with the .577 calibre 1867 Snider-Enfield rifle. Each man carried 70 rounds of ammunition and infantry battalions were issued with 28,800 rounds. The infantry ammunition column consisted of 43 small arms ammunition carts carrying 364,000 cartridges.

The men were to carry one day's rations whereas two day's rations, their greatcoats, plus two pounds of fuel per man were to move with the regimental carts. Five days' rations, including further fuel would follow by train.

Personal equipment was the 1871 Pattern Valise Equipment. Each ammunition pouch carried 20 rounds with an additional 20/30 rounds carried in the black leather expense pouch or 'ball bag'.

The regimental transport of each infantry battalion - an innovation in 1882 - consisted of 10, two-wheeled carts in place of the normal service issue wagons, two water carts, 21 packsaddles and 26 horses.

In addition to their normal infantry equipment, the men of the mounted infantry companies were issued with Martini-Henry rifles and sword bayonets, plus a leather bandolier containing 100 rounds worn over the shoulder.



A mounted infantryman of 3/KRRC, Egypt 1882.

Cavalry regiments were issued with the 1882 Long or Short pattern swords and the single-shot, breech loading, carbine version of the Martini-Henry. Each regiment carried 10,080 rounds of ammunition. The first issue revolver was the Enfield .476 inch Service Revolver had entered army service in 1880.

The cavalry ammunition column included four carts carrying a total of 40,320 carbine rounds, as well as carts carrying boxes of revolver (30,240 rounds) and pistol (20,160 rounds) ammunition.

The RHA batteries were equipped with 13pdr guns (maximum range 6,000 yards) firing shell, shrapnel and case shot, while the field batteries RA had 16pdr rifled muzzle loaders (RML) with a maximum range of 4,000 yards firing the same types of ordnance. There were six pieces in a battery, each complete with limber and ammunition wagon. At battery level there was an ammunition/store wagon, a store limber wagon, a mobile forge and a cavalry spring cart.

Batteries with 13pdrs carried 180 rounds of shell, 648 of shrapnel, and 24 of case shot. In reserve for each battery were 2,000 shell, 720 shrapnel and 28 case shot rounds.

The heavier 16pdr batteries carried 144 rounds of shell, 432 of shrapnel and 24 of case, while in reserve were 288 shell, 864 shrapnel and 48 rounds of case shot.

The 7pdr 2.5-inch screw gun of the mountain artillery had a maximum range of 4,000 yards; fired shell or shrapnel and a battery consisted of six pieces.

The artillery ammunition column carried shot, limbers and spare gun carriages. The ammunition wagons carried either 284 rounds for the 13pdrs or 200 for the 16pdrs. The column also carried 16,000 incendiary star shells.

The Royal Marines

The Royal Marines were divided into The Royal Marine Light Infantry and The Royal Marine Artillery, the latter often being used as infantry.

On 17th July five companies of Royal Marines landed at Alexandria forming part of the garrison of that place and they took part in the 'reconnaissance in force' that kept the Egyptian forces on their toes.

On 8th August Colonel H. Jones RM arrived with 450 men and on 19th August, the Royal Marines as part of the 1st Division proceeded through the Suez Canal to Ismailia. The next day two companies occupied Port Said, while three companies landed and took possession of Ismailia in conjunction with the Royal Navy under Captain Fitzroy of HMS *Orion*. By 21st August the Royal Marines had regrouped and mustered perhaps 1,000 men.

Initially posted to the Guards Brigade, by the express desire of Wolseley, one company under Captain Heathcote was detached as his personal escort during the campaign.



The Household Cavalry attacking the Egyptian positions at Kassassin.

The uniforms for both the Royal Marine Artillery (RMA) and the Royal Marine Light Infantry (RMLI) for service during the Campaign was a simple blue serge undress

jacket with a red grenade on the collar for the RMA and a bugle horn for the RMLI. There was a twisted crimson cord on both shoulders. On the left side of the jacket was a single patch pocket. Foreign Service helmets and white equipment were stained with strong tea upon reaching Alexandria. No valises were carried, but a folded greatcoat was carried in its place. The black leather ball bag was slung around to the rear of the waistbelt. No leggings were taken. The first mention of scarlet being worn is when taking part in the review in honour of the Khedive on his return, when they marched past 'in their red tunics and spotless white duck trousers'.

The Naval Brigade

The term 'naval brigade' is perhaps something of a misnomer, for the Royal Navy personnel who took part in land actions did not have a regular brigade organization. A landing party consisting of a Gatling gun with crew and armed support was sent on shore from each ship as and when required by the situation and were governed by local resources. The companies from the large vessels were composed of 80 men, armed with the Martini-Henry rifle, sword bayonet and 100 rounds of ammunition per man. Two pioneers with shovel and pickaxe, four stretcher-bearers and a hospital steward went with each company.

As an example, the naval detachment at Tel-el-Kebir was found from six warships of the Mediterranean Squadron:

HMS *Alexandria* - 2 officers, 1 midshipman, 1 surgeon, 30 other ranks

HMS *Carysfort* - 1 officer, 36 other ranks

HMS *Monarch* - 2 officers, 30 ratings

HMS *Orion* - 2 officers, 39 other ranks

HMS *Superb* - 2 officers, 30 other ranks

HMS *Temeraire* - 2 officers, 30 other ranks

This detachment also had a battery of six Gatling machine guns, manned by 15 officers and 197 other ranks; two officers and 18 men per gun, plus three officers and 45 men to escort the battery, fill up casualties and guard the guns both on the line of march and in action. A total of 54 mules were used - four per gun, pulling a modified limber - along with three ammunition carriers and two baggage mules per gun.



Types of the Egyptian army, 1882.



Squadron Sergeant Major, 19th Hussars 1882.

The Gatling had a rate of fire of 60 rounds per minute when the upright case or box magazine holding 40 cartridges was used. Four turns on the weapon's crank handle emptied this case, which was quickly replaced and refilled. The Gatling had a crew of 18 men, each armed with a cutlass and a revolver, with 60 rounds of ammunition per man and 2,500 rounds per machine gun. All the personnel were on foot, apart from senior officers who were usually mounted on horses.

There was great variance in the uniforms worn by the Naval Brigade. The seamen of a landing party might wear a straw coloured, wide brimmed, Sennet hat; a dark blue serge blouse over a white vest, white trousers, canvas leggings, black equipment and boots. A blanket roll could be carried over the right shoulder; the water bottles were covered in grey felt. Seamen also wore the all-white hot weather uniform.

The officers had dark blue jackets, brown leather equipment, white trousers, buff gaiters and a stained helmet with a white cloth, also white covers to their peaked caps.

The re-organization of Wolseley's army following the moving of Sir E. Hamley's force from Alexandria to Ismailia, 28th August 1882

Major General D.C. Drury Lowe, CB who commanded the cavalry brigade and later the cavalry division throughout the campaign.



First Division

First Brigade

2/Grenadier Guards
2/Coldstream Guards
1/Scots Guards
Naval Brigade

Second Brigade

2/The Royal Irish Regiment
1/The Queen's Own (Royal West Kent Regiment)
Royal Marine Light Infantry
2/The York and Lancaster Regiment
1/Princess Victoria's (Royal Irish Fusiliers)

Divisional Troops

19th Hussars (2 Squadrons)
2/Duke of Cornwall's Light Infantry
A Battery 1st Brigade RA
D Battery 1st Brigade RA
24th Company RE
12th Company, Commissariat and Transport
Half/No.1 Bearer Company
No.3 Field Hospital

Second Division

Third Brigade

1/The Black Watch (Royal Highlanders)
1/Gordon Highlanders
1/The Queen's Own Cameron Highlanders
2/The Highland Light Infantry
Indian Contingent (attached)
7th Battery 1st Brigade Northern Division RA (Mountain Battery)
1/The Manchester Regiment
1/Seaforth Highlanders (Ross-shire Buffs, Duke of Albany's)
7th Bengal Native Infantry
20th Bengal (Punjab) Native Infantry

29th (2nd Baluch Battalion) Native Infantry
Medical Department, Ambulance, etc.,
Transport
Commissariat
RE Field Park
Ordnance Department

Divisional Troops

19th Hussars (2 Squadrons)
3/The King's Royal Rifle Corps
I Battery, 2nd Brigade RA
N Battery, 2nd Brigade RA
26th Company RE
11th Company, Commissariat and Transport
Half/No.2 Bearer Company
Nos 4 and 5 Field Hospital
No.2 Field Hospital (attached)

Cavalry Division

First Brigade

Household Cavalry (3 Squadrons)
4th (Royal Irish) Dragoon Guards
7th (Princess Royal's) Dragoon Guards
17th Company Commissariat and Transport (part)
Half/No.1 Bearer Company

Second Brigade

2nd Bengal Cavalry
6th Bengal Cavalry
13th Bengal Lancers

Divisional Troops

N Battery, A Brigade RHA
Mounted Infantry
RE Detachment
17th Company Commissariat and Transport (part)
No.6 Field Hospital

Corps Troops

G Battery, B Brigade RHA
H Battery, 1st Brigade RA
C Battery, 3rd Brigade RA
J Battery, 3rd Brigade RA
F Battery, 1st Brigade RA
(ammunition column)
Royal Marine Artillery

Siege Train

1st Battery, London Division RA
5th Battery, Scottish Division RA
6th Battery, Scottish Division RA

Ordnance Store Department

'A' (Pontoon) Troop RE
'C' (Telegraph) Troop RE
Field Park RE
8th, 17th and 18th Companies
Railway Staff RE
Madras (Queen's Own) Sappers
and Miners (A and I Companies)
Commissariat and Transport (8, 15
and Auxiliary Companies)
Half/No2 Bearer Company
Nos 1, 7 and 8 Field Hospitals

The Egyptian Forces

Egyptian soldiers in 1882 wore a small red fez with a short black tassel. Their uniform was summer dress, which consisted of a white cotton cloth tunic and loose trousers. The trousers were tucked into white canvas gaiters, worn over black shoes. The pack, when worn, was brown or black and could have a grey blanket roll wrapped around it. All the equipment - waist belt, single ammunition pouch, and bayonet scabbard was black leather. Officers tended to wear the dark blue winter uniform, which consisted of a single-breasted tunic with voluminous skirts and full trousers tapering towards the ankles.

There were some variations on this - cavalry wore trousers tucked into short black boots for instance, but the uniforms described adequately account for the rebel forces. The irregular Bedouin cavalry wore their own clothing and carried old muskets and whatever equipment came to hand.

Egyptian Weapons and Equipment

The basis of the rebels was a very weak Egyptian army, which in the wake of defeats against King John of Abyssinia, mustered just six infantry regiments each averaging 1,000 men, two cavalry regiments at around 500 each and a regiment of field artillery (600) and coastal artillery (700).

The rest of the army consisted mostly conscripts, or unwilling recruits who had been forcibly recruited - villages were often raided to provide fresh levies. Also, every soldier who had passed through the ranks could be recalled, so the peacetime establishment could be, and was, considerably increased. The army was composed of different races and ethnic groups, such as Arabs of various types, Negroes from the Sudan and Bedouin irregular cavalry. Given the huge numbers rallying - willingly or otherwise - to his call, Arabi had perhaps 60,000 rebels in or around Alexandria, Cairo and Tel-el-Kebir.

The Egyptian infantry were armed with the Remington .433 inch, single-shot rolling block rifle, capable of 17 shots per minute. Conscripts were issued with muzzle loading muskets. Infantry fire seems to have been of

a very mixed quality, edging towards an overall poor. The cavalry were issued with carbines, while the irregulars had antiquated firearms and swords. In the beginning there were 150,000 rifles in store, but only enough equipment and clothing for 40,000 men.

The Egyptians had 9 and 14pdr breech loading Krupp guns of the pattern used during the 1870-71 Franco-German War and which were only marginally less efficient and effective than the British pieces. There were also 14pdr muzzle-loading brass howitzers. Egyptian gunners who came into prominence early in the campaign during the bombardment of Alexandria were good, high quality, soldiers.

Although they were to attack at Kassassin Lock, the Egyptians preferred to fight from behind prepared defences. Their forces did not prove too difficult for the British to overcome. ■



INSET: Major General Sir Evelyn Wood, VC KCB. (Courtesy J. Young.) ABOVE: Lieutenant General Archibald Alison Bt., KCB commanded troops until the arrival of Sir Garnet Wolseley, and then commanded the Highlanders of the 3rd Brigade. He was present at Tel-el-Kebir and after the campaign commanded the British Army of Occupation in Egypt. (Courtesy J. Young.)



The Russian 30mm cannon with support cradle makes the MLI Scorpion look very different from the side. Note the lack of stowage bins - the configuration of these will be left until the main vehicle specification has been finalized.

In the second of his articles on new vehicles for the Jordanian Army Dick Taylor offers a look around the prototype 'Mid Life Improvement' to the Scorpion CVR(T)

The Jordanian Army has operated CVR(T) Scorpion for a considerable number of years and the Jordanian King Abdullah II Design and Development Bureau (KADDB) has recently demonstrated a mock-up/prototype of a Mid Life Improvement (MLI) version, still called the Scorpion, but with a number of significant changes to the original vehicle.

The vehicle is as likely to be offered for export as used in the Jordanian Armed Forces. The 4.2 litre petrol engine has been replaced with an Alvis Cummings B-series 5.9 litre diesel unit, and the engine louvres and exhaust have been altered as a consequence. Plans exist to further alter the rear of the hull by removing the No 5 NBC pack (it never worked very well anyway!) and extending rearwards, whilst still retaining the original suspension layout - the vehicle photographed here has yet to receive the hull extension.

The 76mm QF gun has been replaced with a somewhat futuristic looking 30mm cannon of Russian design, and four mock-up anti-tank missile tubes have been added, two to each turret side. The standard commander's and gunner's sights are still fitted, and the II night sight has been removed, but it is planned to retrofit a SAGEM TI sighting system and a ballistic fire control computer.

As this is really a concept demonstrator and far from a finished product, plans for the MLI Scorpion were not available to me, but the intention is that these walk-around photographs here should suffice to allow a fairly simple conversion with a bit of scratch-building that will make a well-known vehicle look very different indeed. ■

The New Jordanian





ABOVE: The usual KADDB camouflage scheme of Light Stone with Red/Brown and Charcoal stripes has been applied; no markings have been used, not even a registration plate. The headlamps are the old style suspended units. RIGHT: The missile brackets from the front left; the top tube is mounted to the bracket, the lower tube being suspended below.



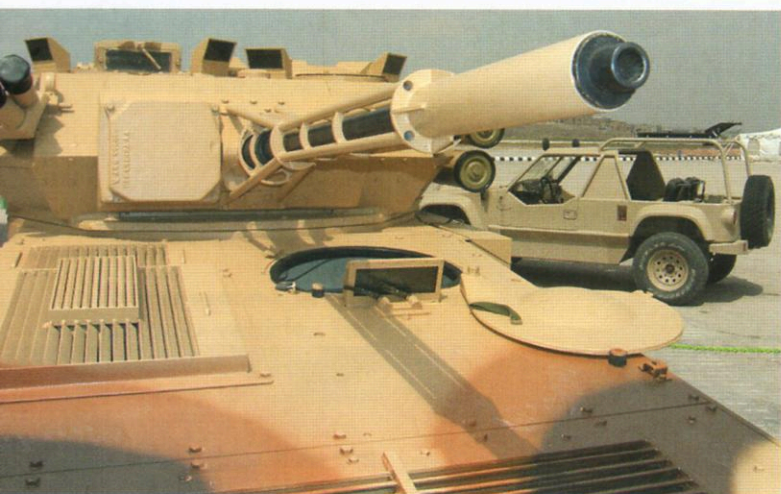
Scorpion



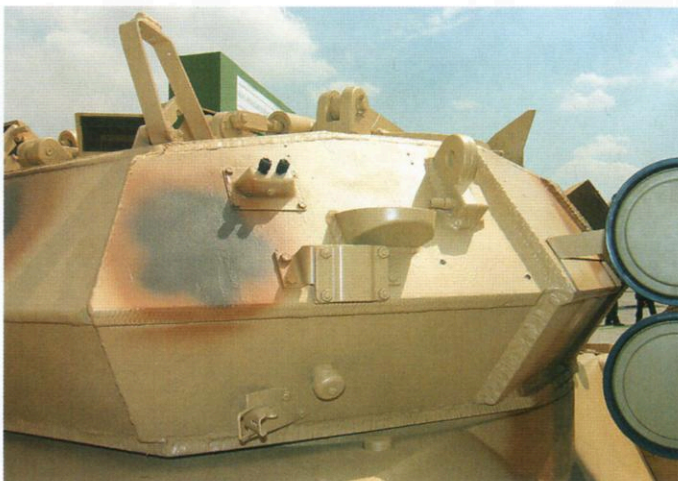
BELOW: From the rear and with no stowage boxes, apart from the jazzy paint and the tubes, the Scorpion looks almost the same as the very early production versions from the 1970s. The exhaust has been radically altered from the horizontal version used with the Jaguar petrol engine, to this simple vertical cast structure welded to the old flotation screen deck above the centre roadwheel.



ABOVE LEFT: The cannon cradle is made up of tubes and plates, and should be an interesting scratch-build project, suited to a novice. ABOVE RIGHT: Mantlet left hand side - no co-axial machine gun is fitted, so a small circular blanking plate has been fitted. The original sights are still in place, but will be replaced with TI units (provided by SAGEM), which will link to the missile system.



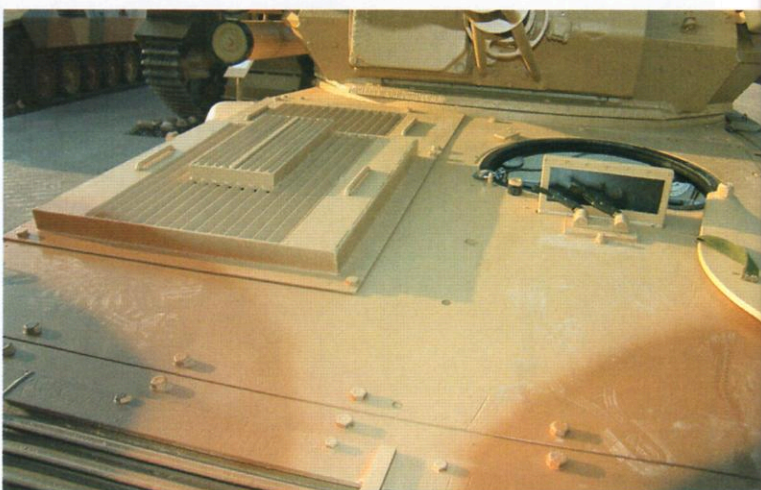
ABOVE LEFT: The cannon certainly looks both modern and menacing. Unfortunately I could not gain access to the interior, so the exact type is uncertain. The image-intensifier night sight barrette has been removed and replaced with a welded blanking plate. ABOVE RIGHT: The business end is a simple cylinder, which I presume acts as a cradle when the barrel is recoiling. Again, notice the relative simplicity of the design. Note also the altered engine louvre configuration.



ABOVE LEFT: The new engine deck from the right hand side.

ABOVE: RIGHT: The turret rear right, showing the simple brackets used to hold the two simulated missile tubes.

RIGHT: The engine decks - the transmission louvre is unchanged, but the Cummings diesel retrofit has required a design change to the engine louvers. Notice that the 76mm gun clamp has been removed.



'ATTEN-SHUN!'

New and recently released products reviewed

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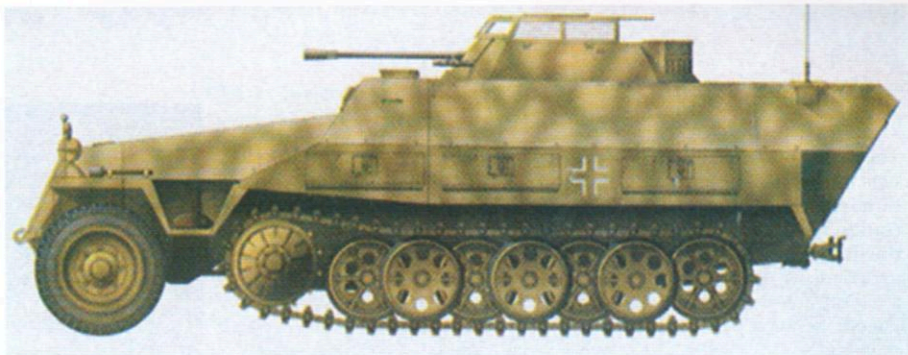
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Cyberhobby

Hard on the heels of many recent 1:35 scale DML *SdKfz 251* kits is another 'boutique' kit from their cyber-hobby.com affiliate, this one being the very late war, *SdKfz 251/23 Ausf D* heavy reconnaissance version with a 2cm turret from the light reconnaissance vehicles mounted on a plate roof. There are 1,031 parts in the box - 714 in grey styrene, 264 'EZ Track' link sections, 31 etched brass, eight in clear styrene, five in tan DS plastic, four turned brass and two silver paper stickers.

Due to a loss of many of their reconnaissance vehicles, the Germans began to convert anything that was considered marginal (e.g. *PzKpfw 38(t)* or other light tanks) or suitably mobile chassis into reconnaissance vehicles. The *SdKfz 251/23* or *Gerät 923* was a standard *Ausf D* model of the halftrack with a 2cm *Hängelafette 38* from the *SdKfz 234/1*, mounted on a flat plate roof and used as a heavy reconnais-



sance vehicle. It was placed in production as of 28th December 1944. An *Fu 12 HF* radio set was provided for communications. While there is very little information on this vehicle available (the one photo I have is retouched and looks to be the 1944 equivalent of 'Photoshop') such a vehicle would have been useful both as a reconnaissance vehicle and as a progenitor of the modern Warrior, Bradley or BMP-2 as an infantry support weapons system.

The new kit from cyber-hobby.com uses many of the sprues from the now familiar DML *SdKfz 251* series half-tracks combined with a new body sprue and all of the turret sprues from the forthcoming *SdKfz 234/1* heavy reconnaissance car kit. (See page 80.Ed.)

These comprise a total of about 90 parts and provide the turret, etched brass mesh covers for the turret, and an optional turned brass 2cm barrel; this requires cutting off the kit's barrel and drilling a 1.2mm (0.050in) hole, but an assembly jig for the gun is provided right on its parts tree to simplify alignment. As provided the covers are fixed either open or closed, but with some work and knowledge of soldering it is possible to make the parts work. The new gun is a very nice piece of work, with brass fold-down AA sights and a number of optional parts in either plastic or brass for detailing. Oddly enough, the lower body parts of what appear to be two crewmen (one standing, one sitting) are provided in the kit but no upper body or other components; if one has

a large figures spares box, these two could be used to fit a crew into the rather cramped confines of the turret.

A radio sprue with a 'Crow's Foot' antenna is also included, but as noted it will be hard to see inside the confines of the hull.

As with all late model *SdKfz 251* kits, this has the early tracks on the sprues and 'EZ Track' pre-cut late model tracks in two separate poly bags. Most of the rest of the kit is familiar to those who have built one or more of the kits, and provide the latest iteration with clear vision blocks, optional position doors and hatches, and etched brass detailing options for the inside and outside of the hull. Considering the viewing angles, however, this is pretty much a waste for the driver's compartment, as it is in front of the turret and the solid roof limits what can be seen. This includes the now standard DS plastic driver.

Two finishing options are provided, both for the Eastern Front in 1945. One is solid 'Panzerbraun', the other has green and red-brown striping. Generic 'number jungle' licence plates and *Balkankreuze* are included as well.

Overall this is a nice kit of a rather handsome vehicle, and DML has provided overkill on the detailing (something like aircraft manufacturers who provide a full interior for scale 9inch x 12 inch windows to see it!) Thanks to Freddie Leung for the review sample.

Cookie Sewell

Price on application, but estimated to be around US\$45

Available on the Internet from cyberhobby.com

Dragon Models Ltd

Dragon continues its series of 'Premium Edition' kits - older kits with new state-of-the-art sprues and parts added - with this set of Rangers, which were first produced in 1994 as Kit No. 6021. The original 80-part kit is now joined by DML's new 'GA' equipment and 'WA' weapons sprues, as well as a new American etched brass fret and four totally new heads made from DML's unique 'DS' 'glue-able' vinyl-like plastic and has become Kit No. 6306 'US Rangers Normandy 1944' Premium Edition.

To recap, the original set of figures had four Rangers from the Pointe du Hoc with charge bags, an M1 with rifle grenade, a BAR and a Bangalore torpedo section. All figures come wearing the special D-Day assault vests as well. The poses were good, and it was one of their first breakout figure sets, which demonstrated that DML was serious about doing good, useful figure sets for modellers. The Premium Edition has 224 parts, 191 in grey styrene, 28 etched brass and five 'DS' plastic.

However, in comparison with today's DML figures, which now comprise up to 17 parts for the human factor, each one here consists of only six: legs, arms, torso and head. While some modellers like this, as it is not as 'fussy' to assemble, there is a loss of some fidelity in doing figures this way. Enter the new headsets, which appear as good as any after-market set going and will give much more 'personality' to the figures. Two are bareheaded and two are designed to take a helmet or the 'ranger' cap included in the original set. A helmet with camouflage netting is included on the DS sprue.



The new parts consists of the 'GA' set which covers the ammo pouches and canteens as well as holsters and first aid pouches. The original weapons' sprue is included (primarily for the M1 with rifle grenade) and other 'WA' sprues are provided, giving two M1 rifles, a BAR with different stock with butt monopod, bipod and accessories, an M1A1 Thompson, and an M1 carbine with magazines and accessories. The 'WA' weapons are all 'slide moulded' with open bores and the rifles and carbine give a choice of open or closed bolts.

The brass fret is unique to this kit and provides the requisite slings and straps for all weapons and helmets, and the carry straps for the charge bags for explosives.

Overall this is a good, older set now made better by the additions, and its re-release will help modellers who are looking for Rangers or other D-Day figures get the ones they want. Thanks to Freddie Leung for the review sample.

Dragon Models are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net enquiries@hobbyco.net

Cookie Sewell

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The VLS Corporation

They keep busy at VLS and their steady output of their own products means regular additions of brand new items are added to their different ranges each month. Although not as prolific (not that they couldn't be!) as in past 'boom times' VLS have structured their production to fit in with current demands in a hobby that is presently experiencing 'quieter' times.

CD8029 in the Custom Dioramics range is a 1:35 scale 'Russian Dwelling WWII' designed by Carlos Elias. The sample here has been painted by VLS's 'hands on' chief, Bob Letterman, who has never really been 'hands off' with his modelling and continues to innovate and devise new techniques. The faded and peeling paintwork here is expertly done and Bob has passed on his technique of how he did it to anyone who has asked. A super model, cast in polyurethane resin, and will cover a lot more locations and earlier and later periods than its product spec proclaims.

If you have seen Bill Chilstrom's award winning diorama OIF in competitions then you'll be pleased to know Bill has completed the last part for commercial sale - the base as CD6142 'OIF Vignette Base'. (The 10 figures in Bill's *Operation Iraqi Freedom* diorama are also available from VLS in the Warriors range of figure kits.) The base is in three parts - scenic groundwork base and two walls, all cast in polyurethane resin and it fits together easily. Obviously, you don't have to do an OIF diorama - you can think up and design your own 'against all odds' defensive type diorama or vignette. You could even get a small tank or a couple of jeeps behind the walls! The packaging slip shows Bill's diorama and makes an attractive marketing ploy for the part - and rightly so!

Another Custom Dioramics item is CD613 'Field Approach No.1' designed by Ben Jakobsen. It is a piece of road section to 1:35 scale and numbered '1' there's obviously an associated item on the way. Cast in polyurethane resin, the road section straddles more of a culvert that would run over a stream, rather than a small bridge over a small river. The culvert has a small stone arch with retaining walls. This comes as a one piece item and would take a small tank (PzKpfw I or Vickers Mark VI for example, or small soft skins - cars, jeeps, etc.,) for which it would provide a very attractive and ready made scenic display base. You could make the tracks follow the gentle curve of the road.

Tamiya's Char B1 bis kit caused quite a stir when it was released a couple of months or so ago, and VLS were pretty quick off the mark to get some tank crew figures into production to go with it. Bill Chilstrom has sculpted WA35604 'French Tank Crew WWII' which has two figures, one standing and the other sitting - designed to fit onto the tank commander's hatch/seat in the back of the turret. Both wear the French tank helmet, which looks like a modified cut down version of the 'Adrian' infantry helmet with a crash pad added to the front, and the distinctive short leather coats seen in the many photos of French tank crewmen of the 1940 period that have surfaced because of the Tamiya kit. Overalls were worn under the leather coat, and the sidearm was usually a pistol (various makes of self-loading and revolvers) in a holster fitted on the belt. A cross belt (Sam Browne style) was worn by officers. A nice duo and ideal for posing next to the Char.

A 'Surrendering Arab' (WA 35585) sculpted by Peter Morton was no doubt intended to be a modern subject - but as painted on the box top he's straight out of the 'Arabian Nights' an all that entails. Just goes to show how old and steeped in history that garb is, making this figure in the Warriors' range suitable for most periods. I suppose the proof will be in the painting. The surrender pose means his arms are raised, but I can see many conversions with other arm sets to achieve an attitude that is completely different to the 'surrender' pose.

Finally, CD 4050 'Pacific Island Girl' has been custom sculpted by Gordon Stronach as an ideal accompaniment to CD8027 Tropical Hut No.2 we saw last issue. The girl is topless (I mention this for those who are offended by any form of nudity, full size and miniature on religious and other grounds) and wears a grass skirt and she wears a flower in her hair.

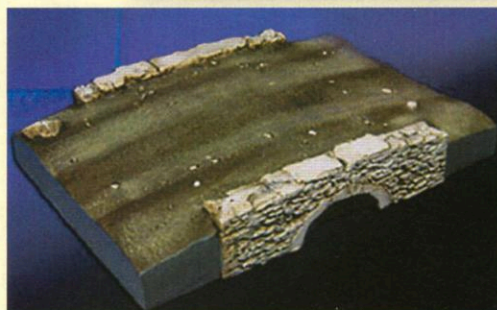
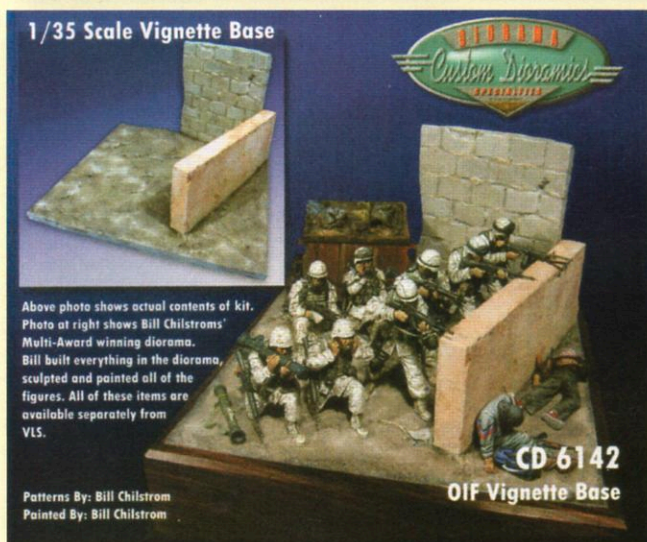
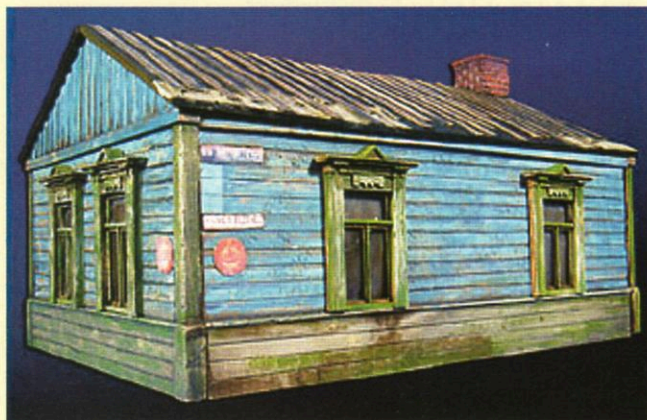
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Just Arrived!

Dragon Models Ltd

A new and up to date 'panzer two' has been eagerly awaited by modellers and Dragon have supplied the goods - not one of the gun tanks, but one of the self-propelled guns mounted on the chassis of the *PzKpfw II* - the *Marder II*. The new kit (6262) of the *Marder II* is a newly tooled kit and it arrived 'hidden' amongst a lot of new Dragon releases and re-releases, improved kits, etc., as we went to press with this issue. Looks like Dragon are gearing themselves up to 'revitalize' their complete range! It certainly seems that way. More on the *Marder II* in the next issue...

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Price £27.99

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Dragon Models Ltd

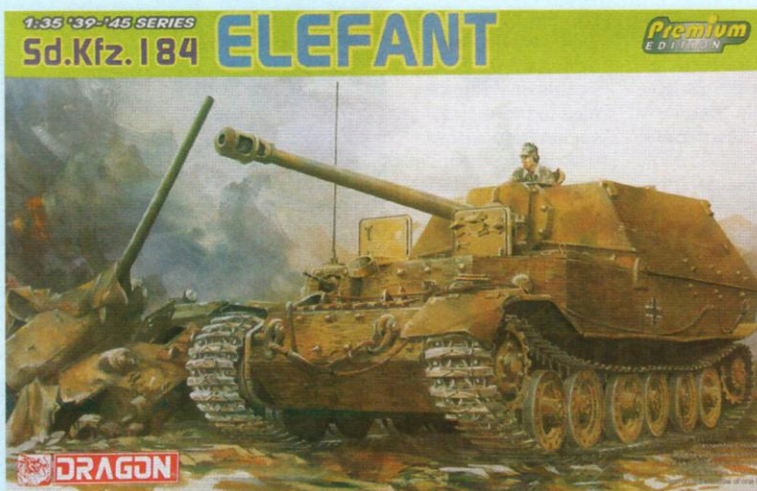
Dragon is currently its attention to upgrading older kits, and one of the first to undergo the 'Premium' treatment is their popular 1:35 scale kit of the Porsche *SdKfz 184 Elephant*. (Kit No. 6311.) This kit was a 'mystery kit' when first released back in January 2001, and now has been cleaned up and a lot of new bits added to make it better.

To cite from my review at that time: The kit is quite different from the old Italeri mould, and the engine deck is very involved and detailed, providing the covered external grilles and an inner former with grille-work cut into it. This compares well with the photos of the APG *Elefant* during its assessment for restoration, which appeared in *Museum Ordnance Special Number 4: Elephant Panzerjäger Tiger (P)* by Tom Jentz and Jeff McLaughan. The screening on the cooling vent over the rear electric motors (parts B9, B10, B19 and B20) is solid, however, but as it is joined to the hull at a reverse angle below the rear of the fighting compartment, it shouldn't be a major complaint. (Note that new parts are offered to upgrade this area of the kit on a 'Y' sprue today.)

The hull comes in a number of pieces - nine, to be exact: hull with sponsons, rear sides, rear plate and bottom rear of hull, bow plate and glacis, rear backing plate to glacis, glacis with ball mount, engine and forward compartment deck, and casemate. All are nicely detailed, but smooth (i.e. no *zimmerit* paste is applied, or simulated by being moulded into the plastic.) Parts placement is by small raised lines, which some modellers find annoying.

The suspension is totally new, and each one of the six bogies consists of nine parts, which do not move as the Italeri ones did. Installing the tracks once the wheels are in place is cagey though, as the hull comes with the sponsons moulded in place, which makes access to the top, run difficult. DML recommends installing the tracks before the fenders (parts B1 and B2) but most modellers will probably want to try and avoid this for painting and finishing reasons. If you have problems with this sort of thing, perhaps a set of Fruiamodel tracks would be advisable, as they can be 'snaked' through in this situation. (The inclusion of 'Magic Tracks' solves this problem, but as with the new *PzKpfw IV* kits there are 'left' and 'right' tracks packed in separate bags, so be careful when using them. They are much easier to install after painting than the original kit's tracks.)

The kit also includes parts for the 8.8cm L/71 gun to include a basic mount, recoil cylinders, and guards at the rear of the breech. The gun mount (parts C14 and C15) appears to cement in place,



which limits traverse of the weapon once installed, but it would seem from the entirety of the gun mount and its components that it could be left loose to also provide the minimal traverse this big gun had in real life. The mantlet alone comprises five parts, so that the massive bolt heads on the joining plates can be accurately reproduced. (A new turned aluminium barrel and the sprue from the 'Tiger I' kit with the muzzle brake section are now included, so this can replace the kit's two-piece styrene barrel. Also a new cupola is included on the 'Y' sprue with clear plastic vision blocks.)

As noted, the model does not come with *zimmerit* detail embellished on its parts. Some modellers have complained about this, saying that, 'If it's on the box it should be on the kit', but most have preferred to do it themselves and 'get it right' rather than some of the methods which kit manufacturers have to use. (The kit acknowledges this, and at least does show what areas need *zimmerit* and where it goes.)

A choice of metal or styrene shackles is provided, as well as this time, the kit comes with the two tow cables and metal cable for them. The kit also now comes with standard DML German tool sets TA (pioneer tools), TB (jacks and fire extinguishers) and TC (tow cable heads).

A choice of five different vehicles is offered: 1./s.Pz.Abt. 653, Italy 1944; s.Pz.Abt. 653, Rome 1944; 1./s.Pz.Abt. 653, Italy 1944; 2./s.Pz.Abt. 653, Poland 1944, and s.Pz.Abt. 614, Poland 1945. All are camouflaged, but the decals include a 'number jungle' so different vehicles may be modelled.

Overall DML has done a great job of upgrading the original kit, having added another 224 parts to the kit and fixing some of their errors or omissions the first time around. However, those people who bought the kit during its first release and have left it as a 'force in being' on their shelves now have to make a choice as to keep it or buy the new one. Many thanks to Freddie Leung for the review sample.

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Andrea Miniatures

New white metal figure kits from Spain's premier manufacturer fall into different categories and include another of the 'Asterix the Gaul' cartoon figures.

A 'Rustic Well' (AS-013 £18.65 + £1.95 p&p) cast in white metal is a 'timeless' prop that figures can be displayed against. Not cheap, but nicely done with a slate roof.

'Licence to Kill' (SG-F123 £16.45 + £1.95 P&P) is obviously a 54mm 'Sean Connery as James Bond' in white tuxedo aiming his pistol (probably Walther PPK) at some unseen villain.

'Templar Banner Holder XIII' is a nice 54mm composition of a knight, cast in white metal, his left arm resting on his large 'kite-

shaped' shield and a banner on its staff over his right shoulder. 'Banner holder' sounds clumsy in English, but so would 'Banner Bearer ...' Price is £17.75 + £1.95 p&p).

'Vercingetorix 52 BC' (SG-F125 £14.95 + £1.95 p&p) - the chieftain who was a thorn in the side of the Romans looks resplendent in winged helmet and 'bell' cuirass, bordering on the fantasy this one, but very nice to paint and such a heroic pose.

A 54mm 'Bronze Age Warlord c.800 BC' is similar in appearance, but of course much earlier. Also a good

pose and priced £16.45 + £1.95 p&p.

A new 54mm Narnia figure - Lucy from The Lion Witch and The Wardrobe is Narnia-13 (price tba) posed, her arm raised to the latch of the Wardrobe (Narnia-12).

Asterix-01 (£16.25 + £1.95 p&p) is Cétautomatix the blacksmith from Asterix the Gaul cartoon series. Proving very popular these 54mm cartoon figures

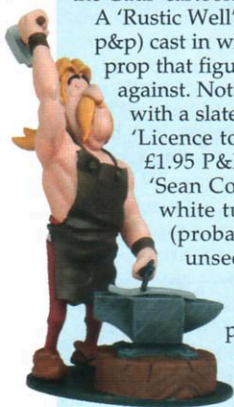
Andrea Miniatures are available in the UK from Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720. Fax: 01304 204528.

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Prices in text

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Metal Modeles

Four new 54mm white metal figure kits have been sent for review by French premier manufacturer Metal Modeles. All are Napoleonic period, except for a German Hussar c.1915. These fine kits are available to UK modellers from Historex Agents of Dover. Please note that Historex have revised their postal rates on mail orders in line with increases in postal charges.

CM GGI (MM109) is a superb mounted figure of a Sergeant of the Grenadiers a Cheval de la Garde caught in a classic pose by designer Bruno Leibovitz, and quite a colourful model will result from a careful painter. Price is £43 plus £4.95 p&p).

MJDS, (MM107) also designed by Leibovitz, is Marechal Jean de Dieu Soult as Colonel General de Chasseurs a Pied de la Garde. Another classic pose typical of Leibovitz's work, Soult holds his bicornie in his left hand and his marshal's baton in his right. The uniform is splendid and rich in gold lace. It's a good exercise in painting different materials and textures to make it look convincing. Price is £19.75 + £1.95 p&p.

TGCGI (MM108) is another of Bruno Leibovitz's 'garde' subjects - a trumpeter of Grenadiers a Cheval de la Garde, another colourful subject complete with embroidered trumpet banner to paint. It is a straight up and down pose in the classic style of Metal Modeles products.

Finally, sculpted by Jean Marie Danel is the German Hussar 1915 already mentioned. GG21 (MMGG21) is a 'Death's Head' Hussar of the 1st Regiment and comes with the fence to lean on and a lance with a pennon. Good pose and very good facial details on this one give it some character. Price is £19.75 + £1.95 p&p.

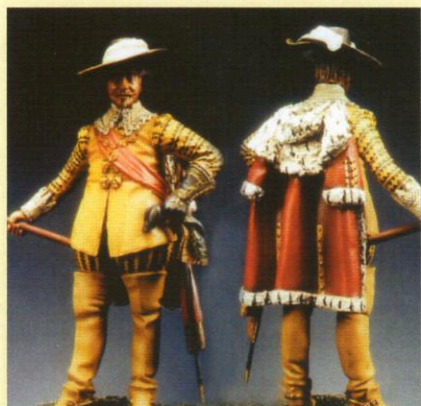
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Metal Modeles, BP 66 La Quènière, Route de Mons, 83440 Fayence, France.



Art Girona

Three of the new releases from Art Girona of Spain have been sent for review by the UK importer, Historex Agents of Dover. The sheer variety of subjects is the main feature of Art Girona's output and these latest 54mm kits are no exception.

Count Albert de Wallenstein 1583-1634 from the Guerra de los Treinta Años was sculpted by Stefano Borin - and here painted by French modeller Guy Bibeyran. Wallenstein was quite an active German commander during the 30 Years War in Europe 1618-48.

Colonel David Crockett 1736-1836 (I-49) was sculpted as a 54mm white metal figure kit by the very talented Raúl García Latorre. It is a straight up and down, and convincing,



pose of a younger Crockett in fringed buckskins his rifle (musket?) cradled in his arms. Of course he's wearing that famous Coonskin cap too. Was that a reality for Crockett, or for Fess Parker the actor who played him in the Disney film years ago. John Wayne as Crockett wore such a cap in his movie *The Alamo*, the fort where Crockett died fighting the Mexican forces under Santa Anna. Whatever, it looks good.

An Officer of the 2nd Battalion Seaforth Highlanders in India 1882, a 54mm white metal figure kit sculpted by Oscar Ibáñez (I-50) owes some of its reference to *Military*



Modelling September 1999 according to its kit slip. It's a good casual, yet military looking pose and a good one to paint with white overseas jacket and Seaforth Highland kilt as shown here by Jesús Gamarra.

Art Girona figures are available in the UK from Historex Agents, Wellington House, 157 Snargate Street, Dover, Kent CT17 9BZ. Tel: 01304 206720. Fax: 01304 204528.

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Price: £14.25 + £1.95 p&p each

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Dragon Models Ltd

DML is now re-releasing some of their earlier 1:35 scale figure sets updated as 'Premium Editions' which add a good deal of new kit, produced with their 'slide moulding' technique, and a selection of DML's new 'standard' sprues. They also provide four new heads per kit.

The kits each consist of their original kit main sprue with four figures on it as well as their basic kit: canteens, bread bags, gas masks, bayonets, and helmets. But now each kit also includes the 'standard' GA and GB sprues. GA provides mess kits, canteens, entrenching tools and bayonets that are far more detailed (i.e. helmets with interiors, the canteen cup is separate, the gas mask canisters have three pieces, etc.) and contemporary. The GB sprue provides all sorts of magazine pouches, bread bags, and holsters, both open and closed.

The new GC sprue which appears in kit 6304 'Panzer Grenadier Division Grossdeutschland Karachev 1943' in full and partially in kit 6305 'German Panzergrenadiers Kharkov 1943' consists of three sub-sprues with pistols, magazines, grenades, and entrenching tools to include one out of its holder. The pistols provided are two flare pistols (one closed, one broken open for loading), a Psc pistol, a P.38, and a P.08 Luger. Grenades include eight 'potato mashers' and six 'egg' type.

The weapons sprues are also standardized. WA provides two Kar 98 rifles with six clips and a choice of open or closed bolt. WB comes with two MP-40s, one MP-44 and one *Gewehr* 41 self-loading rifle. WC is the standard machine gun sprue, and in the case of kit 6305 comes with one MG-42.

GERMAN PANZER GRENADIERS KHARKOV 1943

1:35 '39-'45 SERIES



PANZER GRENADIER DIVISION 'GROSSEDDEUTSCHLAND' KARACHEV 1943

1:35 '39-'45 SERIES



The heads in both kits are different, with the ones from Kharkov having one with a wrapped scarf covering a soft cap, one bare headed, and two that need headgear. The ones in the Karachev kit are two bare heads and two for helmets. Sculpting is much better than the early faces, and the use of 'DS' plastic means they can be cemented to the bodies with little difficulty and have much better overall detail. The 'standard' German etched brass fret is included, which provides weapons slings, belt buckles, epaulettes, combat badges, and medals as well as helmet straps.

Only the original kit arms and legs are included, so the one thing the modeller does not have an option on is changing poses or weapons selection for the figures.

Nice new colour painting sheets, based on the Ron Volstad artwork, are included for each kit and overall these are nice kits, upgrading older DML kits to modern standards, and keeping prices relatively low. Thanks to Freddie Leung for the review samples. Dragon kits are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666.

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Miniarm

The Ural Railway Carriage Factory - better known as Uralvagonzavod, UVZ, the 'Vagonka' or Factory No. 183 - has a long and proud record of tank construction, of which their pride and joy in recent years has been the T-72 family. They started this tank family in the 1960s and continuously evolved it through the 1970s and 1980s. In 1985, they felt their latest tank, the T-72BV with reactive armour and the 9M117 missile system for through-the-bore ATGM armament. But they went to upgrade this tank, creating what they dubbed 'Object 188' (The T-72B was 'Object 184').

Chief designer Vladimir Potkin had this tank, which had some changes over the T-72B, just about ready for introduction in 1990 and in fact was beginning to provide them to the Soviet Army. But after *Desert Storm* - and the disaster that took place amongst the Soviet and Czech built T-72s in service with Iraq, the T-72 suddenly became a drug on the market and no orders were forthcoming.

Upset at what they felt was unfair publicity (the Russians still claim today that the Iraqis only lost 14 T-72s in combat and the rest were blown up in place by their crews) the T-72BM, which was accepted for service on 27th March 1991, was no longer wanted. Seeing foreign sales dry up, Potkin went to work to upgrade the new tank and resell it to the Army. The T-72BM had a new engine, the V-84, which boosted power to 840hp as well as 'second generation' reactive armour dubbed 'Kontakt-5' which was reported to be effective against both chemical (HEAT) and kinetic (APFSDS) rounds.

The new 'Object 188 Improved' offered now added several things to it, such as the 1A45 *Irtys* fire control system from the T-80U and the *Shtora-1* electro-optical countermeasures system. With some other tweaks, the new 'T-72B Improved' was tendered for service. But in this case, when Russian President Boris Yeltsin accepted the tank for service, he changed the service designation to T-90. This did two things: one, it gave it a different slant for advertising when selling it to third world customers, and two, he proclaimed it the first 'Russian' tank (as opposed to Soviet). So far the Russian Army has acquired about 300 of all models of T-72BM or T-90, and India has purchased 310 of the T-90S version of the tank. Later models of the T-90 also have a welded plate turret vice the cast T-72B type of the early models.

Miniarm has continued their great series of 1:35 scale upgrade products for Soviet tanks with two complementary kits that transform the Tamiya T-72M1 into a T-72BM or early model (e.g. non-*Shtora-1* equipped) T-90. They provide nearly all of the bits needed to change the kit over to the new version. The kits are available in the United States from CMD, Kit No. B35026: T-72BM Turret Model



1989 For Tamiya and Trumpeter Kits; 51 parts, 48 in tan resin, two turned aluminium and a length of brass wire. Price US\$45. Kit No. B35027: T-72BM Conversion Set for Tamiya and Trumpeter Kits; 25 parts, 24 parts in tan resin, and a length of brass wire. Price US\$32.

The turret set provides a new T-72B type turret base with improved or corrected hatches and searchlight fittings, new side stowage bins, a Type 902B 8-tube smoke grenade projector, and both standard and 'Kontakt-5' reactive armour boxes for the turret. All of them look right and match available photos of the fittings.

The conversion set is based on the fact that the glacis armour on the T-72BM and T-90 is what the Russians call *vstroyniy* or 'built-in.' (Normal reactive armour boxes are *nastroyenyiy* or 'stuck on'.) To that effect, this kit comes with a complete new glacis and fender section with the fancy rubber tip skirts cast in place. It provides the new 'Kontakt-5' skirt armour panels and mounts, and also new fittings for the fold-down scraper blade under the hull.

The latter kit requires that the entire Tamiya hull top be cut back to the turret race on the hull itself and to the joint line right behind the first stowage bin/fuel tank on the front of the fenders. Lips are cast in place to get a good, sturdy joint.

Where Tamiya parts are used, they are called out in the directions along with photos and arrows showing how and where the new parts are located.

The only things I noted as odd with these two kits are their call for a good deal of copper wire; the kits provide only one small section of brass wire which does not seem to provide sufficient material to match the requirements (it serves as the cabling for lights, controls for the KMT series mine plough/rollers, and the hinges for the three 'Kontakt-5' panels on the front of the skirts.)

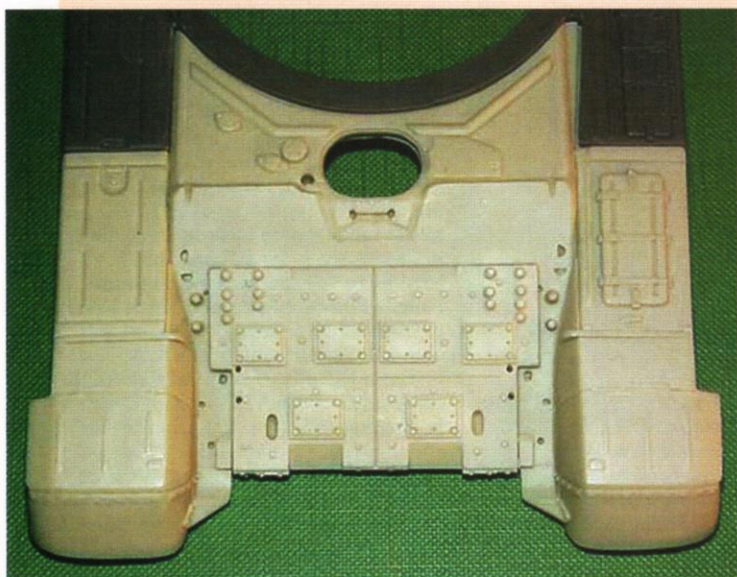
Also, the very prominent flange along the top of the 2A46-4 gun tube is missing. There is a groove there to attach it, but I could not find any flanges. Normally barrel manufacturers provide this as a folded strip of etched brass and a groove in the tube to attach it, but such is not the case. Just to be sure that it had not changed, I got out the references I have on T-90 and initially found several that did not appear to have it either. Finally, I found a sequence of shots that showed the barrel shrouds mounted at a 45° angle off axis to the right, so the flange would not show in any 'glamour' shots taken from the left side of the tank. This can be replicated from thin styrene strip, but it's odd, considering the rest of the Miniarm products, they would have missed this.

Overall, the kits are a great place to start on a T-90 or simply the T-72BM for anyone wanting a complete family of '72s. Note: while Miniarm recommends either the Tamiya or Trumpeter T-72 kits, I will not recommend the Trumpeter kit, as it is both a knock-off of the Tamiya kit (to include using its instruction sheet with the 'Tamiya' headers removed) and a poor copy at that! Thanks to Bill Miley of CMD www.chesapeakemodels.com for the review sample

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Prices in text

Chesapeake Model Designs, Box 393, Monkton, MD 21111, USA.
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Dragon Models Ltd

Dragon's current programme of selecting some of their existing kits and reissuing them as 'Premium Edition' kits are essentially older kits that have been improved by the addition of new sprues from other, newer kits as well as the addition of some of the accessories created for those same new kits along the way; such as etched brass and turned aluminium barrels. Armour kits also tend to get either 'EZ Track' or 'Magic Track'; the former are off-the-sprues parts ready to assemble, and the latter are snap-together tracks to speed assembly.

DML's 1:35 scale Kit No. 6312; *Sd.Kfz 182* King Tiger (Porsche Turret) is about three years old, but has now received the 'Premium' treatment with the addition of these accessories. The base kit uses the latest edition of the primary parts (e.g. hull, wheels and most details) with the Porsche turret and a slew of accessories. There are now 804 parts; 376 in grey styrene, 240 'Magic Track' links, 159 etched brass, 19 clear styrene, four white metal, two twisted steel wire, one wire, one brass chain, one preformed brass wire and an aluminium turned barrel.

First off, the kit now comes with 'Magic Track' links - 120 'A' links and 120 'B' links - for snap-together assembly. This will make many modellers happy, as preparing and assembling single-link track can be quite tedious. Secondly, many detail parts have been replaced with the new standardized DML 'T' series generic German tool and equipment sprues. The ones provided are as follows: TA - pioneer tools and a fire extinguisher; TB - jack and cable hooks; TC - tow cable heads; TD - auxiliary cable heads; TF - 8.8 cm muzzle brake for aluminium barrel; TG - self-defence projector weapon; TH - hatch braces; TJ - turret AA MG ring mount; TK - bow machine gun mount; TL - armoured exhaust covers. These apparently will be provided with different kits as need be, but are all state of the art slide mouldings where applicable. Third, the model comes with a large sheet of etched brass for the screens and brackets used on the tank.



And finally, it comes with some metal accessories, such as towing clevises, a whip antenna, a section of chain, two metal tow cables, and a turned aluminium barrel.

The directions are unfortunately the colour photo variety, which from my point of view makes applying the etched brass parts difficult, as it is hard to see them in the photos of a partially finished model with 'Stick here' arrows. I have seen a new method used by DML in which colours are used for the various parts with black and white drawings, and when you have a ton of etched brass parts this is easier to read than the colour directions, which offer little - if any - help. That's a shame as it lets a very nice kit with great accessories down.

There are also a lot of odd things about the kit. For example, the kit comes with a very nice bow MG-34 (sprue J) but there is none for the nicely done AA mount. The main problem most modellers will have is that alas, it does not come with the *zimmerit* paste coating found on nearly all of the Porsche-turreted tanks, even though the finishing directions show it and indicate it is required and it's shown on the boxtop illustration.

Finishing instructions and decals are provided for five vehicles: 3/s.Pz.Abt. 503 in Hungary, 1945 (winter white); s/Pz.Kp(Fkl) 316, France 1944 (overall 'Panzerbraun'); s.Pz.Abt. 506, Arnhem 1944 (green over 'Panzerbraun'); Unidentified, Eastern Front 1944 (tricolour); and s.Pz.Abt 503, Normandy 1944 (tricolour). Decals are 'targeted' on the single sheet.

Overall this is a nice upgrade to the original kit, but with the advent of DML's provision of *zimmerit* moulded on their 1:72 scale line one can only hope that they extend it to their larger kits, too.

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Dragon Models Ltd

Premium kits appear to be high on Dragon's list of improving their existing range of 1:35 scale kits and the 'up to date' treatment for their Panther Ausf D and Ausf G have recently been released - the Ausf G came in as we went to press with this issue. A preliminary report on it will feature in the next issue. Dragon products are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net iries@hobbyco.net Both are £27.99 rrp in the UK.



1:35 '39-'45 SERIES

Sd.Kfz.234/1

Schwerer Panzerspähwagen (2cm)



Dragon Models Ltd

Hot on the heels of their excellent 1:35 scale SdKfz 234/4 kit is the new DML SdKfz 234/1 2cm schwere Panzerspähwagen - armed heavy reconnaissance car, kit no. 6298. This kit was a special release, timed to coincide with 'Dragon Expo '06' in California, and from the looks of it should be a big hit, with 532 parts - 485 in grey styrene, 31 etched brass, 12 clear styrene and four turned brass.

The Germans continued their pre-war designs throughout the War, and the SdKfz 231 heavy eight-wheeled armoured car series was replaced by the SdKfz 234 series beginning in September 1943. Four different vehicles were produced in this series:

SdKfz 234/1 (Gerät 95) 200 built 2cm cannon/7.92mm MG in open turret (built Jun 44 - Jan 45). SdKfz 234/2 (Gerät 93) 101 built 5cm gun/7.92mm MG in closed turret (also called the *Puma*) (built Sep 43 - Sep 44). SdKfz 234/3 (Gerät 94) 88 built 7.5cm L/24 in open mount (built Jun 44 - Dec 44). SdKfz 234/4 (Gerät 96) 89 built 7.5 cm PaK 40 in open mount (built Dec 44 - Mar 45).

The 'Stroke 1' was built in the largest numbers and with its 2cm gun was pretty much used as a reconnaissance car and not a mobile weapons platform like the 'Stroke 3' and 'Stroke 4'. The SdKfz 234 series was fast (80kph/48mph) and had a long range (900 km/560 miles). Armour provided proof against small arms of 7.62mm calibre and shell fragments. Since its Tatra 103 engine was a 12-cylinder air-cooled diesel, it had a major advantage over other nations' armoured cars.

This kit shows a number of changes from the 'Stroke 4' kit, combining a number of sprues from that one with the new 2cm turret that debuted in the SdKfz 251/23 kit (No. 6293). They have 'mixed and matched', but to add to modellers' confusion they are now carrying sprues as specific to a kit. Therefore, the 'C' sprue with the hull parts from the SdKfz 234/4 is not provided, but a new SdKfz 234/1 'C' sprue is, just when you think you have them all figured out!

This one also includes some 'standard' German sprues, namely the German Tools sprues TF (fender guides and poles) and TJ (jack) and weapons sprue WC (MG34 and MG42 machine guns.)

As with the 'Stroke 4' the parts are somewhat generic and you have to check and open up some assembly and mounting holes before beginning construction, but as they are during the construction of the vehicle you have to look close in the somewhat busy directions.

The undercarriage of this model is amazing in the complexity with which DML has replicated it, and each suspension unit seems to require no less than five parts for each wheel, that a choice in centres to replicate different numbers of cleanout holes is provided, 11 parts for each paired set of axles, and five parts for the tie rods plus six parts for the rocker springs. I always liked the fact that this vehicle had eight-wheel progressive steering, and was quite impressive to see

when the wheels were cocked at an angle. (But having been the platoon sergeant to the US Army's biggest rolling headache, the M561 'Gama Goat', which had front and rear axle steering, I am happy I never had to do maintenance on this one!)

The interior is provided and appears quite complete, but again the hull side doors are moulded shut as once the turret is in place it will be hard to see all of the details. Both driver's positions are provided as well as the top of the transfer case/transmission and the ammo bins with covers. Internal bracing is provided along with clear styrene blocks for the vision ports. There are optional choices for the vents at the rear - open or closed - as well as for the view blocks.

The fenders are the later style with four stowage bins per side, but alas they are also moulded shut. The etched brass provides the inserts for the jerrycan centres (the crimped seam on the actual cans), tool mounts, gun mantlet, the mesh covers for the turret, and an etched brass 'Crow's Foot' long range HF antenna for the vehicle in place of the plastic one also provided.

The turret in this kit does not come with the lovely turned brass barrel provided in the SdKfz 251/23 kit, but it does come with two different 2cm gun barrels of which the longer (J10) is shown to be used with the model. I am not sure why the difference in the barrels, (it looks to be about 8mm) as both guns are listed as KwK 38 guns. The turret itself is very well detailed and covers most of the parts modellers like in plastic, but it also has alternate etched brass parts for the sights and the rear stowage bin flaps.

The wheels are two-part mouldings with only light tread patterns, but as they are hard plastic many people will be happy as there is no hard-to-remove vinyl seam. This kit also provides a spare wheel carrier mount at the rear of the hull for a ninth wheel.

Markings are provided on two decal sheets for two different vehicles, one in tricolour camouflage for the 6th Panzer Division in Austria (1945) and one for the 25th Panzer Division in Germany (1945) in whitewash. The kit comes with a 'targeted' decal sheet for the two vehicles and also a 'number jungle' set of licence plates.

Overall this is a really nice kit and picks up where the 'Stroke 4' and SdKfz 251/23 left off. Many German wheeled vehicle fans will now be eagerly awaiting the 'Stroke 2' (*Puma*) and 'Stroke 3' 7.5 cm L/24 close support gun. Thanks to Freddie Leung for the review sample. Dragon kits are imported into the UK by The Hobby Company Ltd., Garforth Place, Knoll Hill, Milton Keynes MK5 8PH. Tel: 01908 605686. Fax: 01908 605666. sales@hobbyco.net enquiries@hobbyco.net

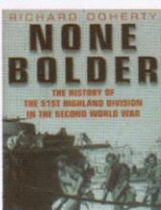
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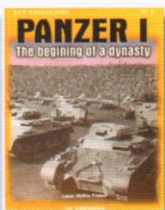
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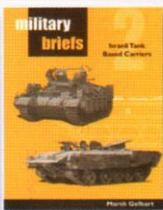
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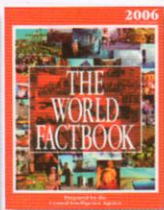
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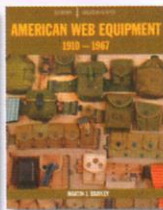
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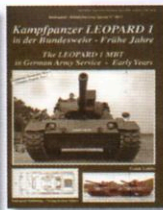
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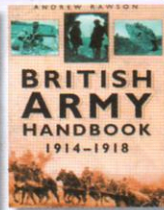
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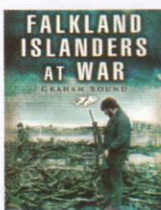
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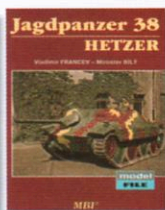
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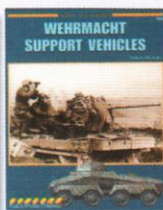
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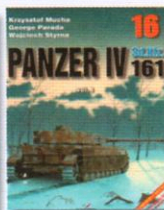
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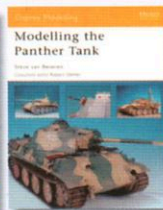
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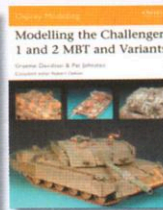
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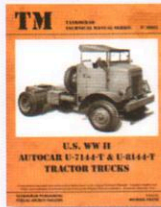
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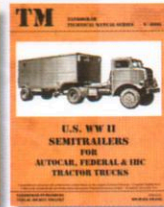
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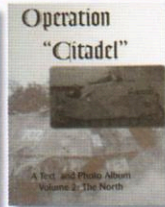
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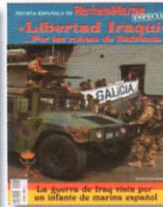
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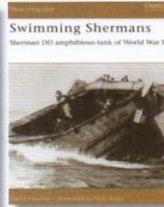
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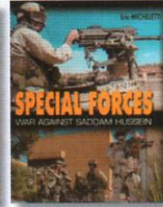
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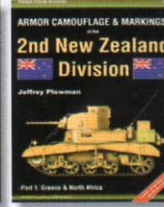
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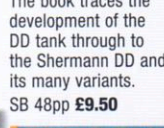
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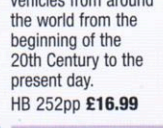
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